

GRAIN DEALERS JOURNAL

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Think Right and You'll Be Right

The happy man is the one who thinks happiness, the healthy man is the one who thinks health, and the successful man is the one who thinks success.

Earnest hope is the greatest tonic in the world, and it is never more needed than in those dark moments when any hope at all seems useless.

And when hope departs, it leaves the mind and body open to despair, to disease, and to dire disaster.

Now let us impress upon you, with all of the power which words can convey, that this is an actual, living truth. It is not the teaching of any particular school, cult, religion, or philosophy. It is a fact that can be proven, not only by observation, but by material tests in any physiological laboratory.

Despair has a decided effect upon the entire body. It slows the heart, upsets the stomach, throws out of balance all of the natural functions of the body, and floods the system with infectious poisons. A hopeless man is, physically as well as mentally, weak; and invariably is incapable either of proper action or safe thought. Therefore, unless his hope is aroused and his resistance increased, he is subject not only to failure but to sickness.

Keep on going, no matter how hard your way or how thick and fast your troubles beset you. So delicate is this invisible connection between mind and body that an implied admission of defeat, even the slightest suggestion of failure, by word or thought, is weakening.

Hopeful thoughts, yes, even defiant thoughts in the face of impending disaster, will tone up the mind, make your blood flow faster, and strengthen your muscles. In this condition of mind and body you have at least a chance of seizing the right opportunity and of turning apparent defeat into certain victory.

Think hope in the face of disaster! Think success when confronted with failure!

Your only hope is *hope*!

We are fervently wishing every reader of the Journal a bountiful store of hope, courageous hope to face every responsibility, to master every difficulty. When we can be of any help in solving grain trade problems, it will be a pleasure to render the service.

The Staff of the Grain Dealers Journal

Price insurance and the speculative grain market

The Chicago Board of Trade is a meeting place for the buyers and sellers of actual grain and other food stuffs. The so-called speculative market is merely an important element in that marketing. Germany's attempt to eliminate it some years ago resulted in chaos and it had to be re-established.

It is a principle of economics that there can be no ownership of property without risk. Whether a transaction be in real estate, bonds, brick, wheat or what not, the element of risk is present. It is all a speculation. The buying and selling of grain for future delivery is neither more nor less speculative than in other property. In the grain exchange system the universal instinct to "take a chance" has been harnessed for the public good.

By reason of the speculative market in grain the process known as hedging is possible. Hedging affords an insurance to owners of actual grain against loss by fluctuation in the period, let us say, between its leaving the country elevator and its re-appearance as flour in an English mill. Hedged grain is grain which carries insurance against loss to the owner by price changes. This insurance is as necessary as insurance on one's house. As the speculative market alone affords this insurance its important place in grain marketing must be recognized. By reason of this protection the farmer receives more for his grain; the consumer pays less.

The Chicago Board of Trade

Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

HAVING YOUR name in this directory will introduce you to many old and new firms during the year, whom you do not know or could not meet in any other way. Many new concerns are looking for connections, seeking an outlet or an inlet, possibly in your territory. It is certain that they turn to this recognized Directory, and act upon the suggestions it gives them.

AMARILLO, TEXAS.

Early Grain & Elevtr. Co., wholesale grain.*
Stone & Co., Lester, wholesale grain.*

ATCHISON, KANS.

Moore-Lawless Grain Co., consgts., futures, pvt. wires.*

ATLANTA, GA.

Commercial Exchange Members.

M. H. Haym, successor to
Gregg & Son, J., wholesale brokers, grain, hay.*

BALTIMORE, MD.

Chamber of Commerce Members.

Baltimore Grain Co., grain receivers, exporters.*
Blackburn & Co., C. P., grain receivers, exporters.*
Dennis & Co., grain merchants.
England & Co., Inc., Chas., grain, hay.*
Fahey & Co., John T., grain receivers and exporters.*
Gill & Fisher, receivers and shippers.*
Hammond, Snyder & Co., Inc., receivers, exporters.*
Hax & Co., G. A., grain, hay, seeds.*
Jones & Co., H. C., receivers, shippers, exporters.*
Lederer Bros., grain receivers.*
Robinson & Jackson, grain commission merchants.*
Steen & Bro., E., grain receivers and exporters.*

BEAVER, OKLA.

Horne Grain Co., Texas wheat, barley, milo.

BIRMINGHAM, ALA.

Birmingham Grain Co., grain, feed, flour.*
Hemphill & Co., R. C., mdse. & grain brokers.*
Montgomery Brokerage Co., grain, gr. pdts., hay, mdse.
Western Grain Co., mfrs. mxd. feed, crn. meal, grits.*

BLOOMINGTON, ILL.

Hasenwinkle Grain Co., brokers of country grain.

BOSTON, MASS.

Chamber of Commerce Members.

Benzaquin, Matthew D., grain brokerage commission.*

BUFFALO, N. Y.

Corn Exchange Members.

Armour Grain Co., grain merchants.*
Burr's Grain Co., grain commission.*
Churchill Grain & Seed Co., receivers, shippers.*
Davis, Inc., A. C., grain.*
Doorty-Ellsworth Co., Inc., brokerage commission.*
Electric Grain Elevator Co., consignments.*
Globe Grain Co., receivers & shippers.*
Harold, A. W., grain, barley a specialty.*
Lewis Grain Corp., receivers & shippers.*
McConnell Grain Corporation, commission merchants.*
McKilien, Inc., J. G., receivers and shippers.*
Pratt & Co., receivers, shippers of grain.*
Ratliffe, S. M., commission merchant.*
Seymour-Wood Grain Co., consignments.*
Sunset Grain & Feed Co., grain & feed.*
Taylor & Bournique Co., grain merchants.*
Traders & Producers Supply Co., millfeeds a specialty.*
Townsend Ward Co., The, consignments.*
Watkins Grain Co., consignments.*
Whitney & Gibson, consignments.*

CAIRO, ILL.

Board of Trade Members.

Cairo Grain Commission Co., consignments.*
Halliday Elevator Co., grain dealers.*
Lynch Grain Co., grain dealers.*
Thistlewood & Co., grain and hay.*

CARROLLTON, MO.

Claiborne Commission Co., commission merchants.*

CEDAR RAPIDS, IOWA.

Cedar Rapids Grain Co., corn and oats.*
Gifford Grain Co., grain and grain products.*
King Wilder Grain Co., grain shippers.*

CHATTANOOGA, TENN.

Board of Trade Members.

Hood Feed Co., flour, feeds, field seeds.

*Member Grain Dealers National Association.

CHICAGO, ILL.

Board of Trade Members.

Anderson & Co., W. P., grain commission merchants.*
Armour Grain Co., grain buyers.*
Bailey & Co., E. W., grain commission merchants.*
Bartlett-Frazier Co., grain merchants.*
Brennan & Co., John E., grain commission merchants.*
Carhart Code Harwood Co., grain commission.*
Dole & Co., J. H., grain and seeds.*
Freeman & Co., Henry H., grain, hay, straw.*
Gerstenberg & Co., commission merchants.*
Hales & Hunter Co., grain merchants.*
Harris, Winthrop & Co., grain commission.*
Hitch & Carder, commission merchants.*
Hoit & Co., Lowell, commission, grain and seeds.*
Lamson Bros. & Co., consignments solicited.*
Leland & Co., E. F., grain and seeds.*
McKenna & Dickey, commission merchants.*
Mumford & Co., W. R., grain, hay, millstuffs.*
Norris Grain Co., grain merchants.*
Paynter, H. M., grain and field seeds.*
Pope & Eckhardt Co., grain and seeds.*
Press & Co., W. G., grain, provisions, stocks, etc.*
Requa Bros., wheat a specialty.*
Runney & Co., grain commission.*
Schiffelin & Co., P. H., commission.*
Shaffer Grain Co., J. C., grain merchants.*
Somers, Jones & Co., grain and field seeds.*
Updike Grain Co., consignments.*

CINCINNATI, O.

Grain & Hay Exchange Members.

Early & Daniel Co., grain, hay, feed.*
Gale Grain Co., The A. C., receivers & shippers.*

CLEVELAND, O.

Grain & Hay Exchange Members.

Bailey, E. I., grain and millfeed.*
Cleveland Grain & Milling Co., The, recvrs. & shprs.*
Gates Elevator Co., The, receivers and shippers.*
Sheets Elevator Co., The, grain, hay, straw.*
Shepard, Clark & Co., grain merchants.*
Strauss & Co., H. M., receivers, shippers hay & grain.*

COLBY, KANSAS.

Harris & Haynes, wholesale—brokers—grain.

CLOVIS, N. MEX.

Western Elevtr. Co., The, revrs.-shprs., hdqtrs kafir-milo.*

DAVENPORT, IOWA.

Davenport Elevator Co., receivers and shippers.*

DALHART, TEXAS.

Kinard Grain Co., J. C., wholesale grain & hay.*

DECATUR, ALA.

Decatur Coal & Mfg. Co., grain and feedstuffs.*
Lyle-Taylor Grain Co., whlse. grain, hay, feeds.*

DECATUR, ILL.

Baldwin & Co., H. I., grain dealers.*

DENVER, COLO.

Grain Exchange Members.

Ady & Crowe Merc. Co., The, grain and hay.*
Ashcraft Grain Co., S. B., wholesale grain.*
Conley-Ross Grain Co., The, grain and beans.*
Crescent Flour Mills Co., The, merchant millers.*
Denver Elevator, wholesale grain, flour, millfeed.*
Farmers Elevator Co., The, H. F. Rover, Mgr.
Gallagher Grain Co., grain merchants.*
Houston Grain Co., wholesale grain.*
Kellogg Grain Co., O. M., receivers and shippers.*
McCaull-Dinsmore Co., wholesaler and commission.*
Moore-Lawless Grain Co., private wires to all markets.*
Phelps Grain Co., T. D., wholesale grain.*
Rocky Mountain Grain Co., export and domestic grain.*
Scott-George Grain Co., The, receivers and shippers.*
Summit Grain Co., wheat, corn, oats, rye, barley.*

DES MOINES, IOWA.

Board of Trade Members.

Des Moines Elevtr. & Gr. Co., oats a specialty.*
Marshall Hall Grain Co., grain commission.*
Taylor & Patton Co., corn and oats.*

DETROIT, MICH.

Board of Trade Members.

Dumont, Roberts & Co., receivers, shippers.*
Huston, C. R., grain and hay.*
Lapham & Co., J. S., receivers & shippers.*
Lichterberg & Son, oats, corn, hay, straw.*
Simmons & Co., F. J., grain and hay.*
Swift Grain Co., consign or ask for bid.*

DODGE CITY, KANSAS.

Hillyer Grain Co., grain.

FORT WORTH, TEX.

Grain and Cotton Exchange Members.

Dorsey Grain Co., merchants—commission, consignments.
Transit Grain & Com. Co., consignments, brokerage.*

GREAT FALLS, MONTANA.

Barkemeyer Grain & Seed Co., grain dealers.*

GREENVILLE, O.

Grubbs Grain Co., E. A., track buyers.*

HAGERSTOWN, MD.

Valley Brokerage Co., feed, grain, hay broker.

HAMBURG, IOWA.

Sullivan & McBride S. & G. Co., red cob fodder corn.

HASTINGS, NEBR.

Koehler-Twisdale Elevator Co., grain dealers.*
Moritz Grain Co., C., wholesale grain.*
Sexson, C. R., grain.*

HATTIESBURG, MISS.

Merchants Grocery Co., whlse. grocers, grain, fd., flr.

HILLSBORO, KANSAS.

Hillsboro Roller Mills, gr. dlrs., flr., chick feed.

HOUSTON, TEX.

Gulf Grain Co., grain, hay, millfeed.*
Rothschild Co., S., grain, c/s products, rice b/p.*

HUTCHINSON, KANS.

Board of Trade Members.

Central Grain Co., The, buyers for mills.*
Farmers Co-op. Com. Co., commission merchants.*
Goffe & Carkner, private wire.*
Hayes Grain Co., John, grain merchants.*
Hutchinson Grain Co., grain merchants.*
McClure Grain Co., J. B., buyers and sellers.*
Midwest Grain Co., The, shippers.*
Moore Grain Co., consignments—buyers of grain.*
Producers Grain Co., The, milling wheat.*
Southwest Grain Co., receivers and shippers.*
Union Grain Co., grain merchants.*
Vanderslice-Lynds Co., grain commission merchants.*

INDIANAPOLIS, IND.

Board of Trade Members.

Anderson & Mercer, grain commission & consignments.*
Boyd Grain Co., Bert A., strictly brokerage & com.*
Cleveland Grain & Milling Co., grain commission.*
Hayward-Rich Grain Co., grain commission.*
Menzie Grain & Bkg. Co., Carl D., grain commission.*
Probst & Kassebaum, Inc., hay, grain, feed.*
Steinhart Grain Co., commission and brokerage.*
Witt, Frank A., grain commission and brokerage.*

JACKSON, MICH.

Bartlett & Co., J. E., salvage grain buyers & sellers.*
Wagner-White Co., track buyers-sellers, grain-feed.*

JACKSON, MISS.

Field Co., Robt., succ. to P. L. Brittain Co.*
Royal Feed & Mfg. Co., mixed feed mfrs.*

KANSAS CITY, MO.

Board of Trade Members.

Christopher & Co., B. C., kafir, feterita, milo.*
Claiborne Commission Co., commission merchants.*
Croysdale Grain Co., commission merchants.*
Davis Grain Co., A. C., grain commission.*
Denton Kuhn Grain Co., consignments.*
Ernst Davis Grain Co., commissions.*
Federal Grain Co., receivers, shippers.*

(Continued on next page.)

Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

KANSAS CITY, MO., (Continued)

Frisco Elevators Co., grain merchants.
Goffe & Carkener, grain commission.*
Halt-Baker Grain Co., consignments.
Lichtig & Co., H., kafir, mlo, screenings.*
Logan Bros. Grain Co., receivers and shippers.*
Miller Grain Co., S. H., consignments.
Moore-Lawless Grain Co., grain receivers.*
Moore-Seaver Grain Co., receivers and shippers.*
Norris Grain Co., grain merchants and exporters.*
Roehen Grain Co., E. E., consignments.
Root Grain Co., consignments and futures.*
Secular Bishop Grain Co., receivers and shippers.*
Shannon Grain Co., consignments.
Simonds, Shields, Lonsdale Grain Co., grain.*
Terminal Elevators, receivers, shippers.*
Twidale-Wright Grain Co., consignment futures.
Thresher Grain Co., R. J., grain commission.*
Wilser Grain Co., consignments.*

LAWRENCE, KANS.

Underwood & Sons, J., grain, feed, seeds.

LEAVENWORTH, KANS.

Wilson-Legler Hay & Grain Co., branch at Kansas City.

LIBERAL, KANS.

Light Grain & Mfg. Co., mill pdts., kafir, mlo.
Vickers Grain & Seed Co., grain and field seeds.

LINCOLN, NEBR.

Grain Exchange Members.
Lincoln Grain Co., grain merchants.*
Wright-Leet Grain Co., receivers and shippers.

LITTLE ROCK, ARK.

Grain Exchange Members.
Caple & Stockton hay, grain, feed.
Davis, S. P., Est. 1893, grain, flour, cottonseed meal.*
Farmer Wilson Co., brokers, hay, grain, mill feed.*
Gordy Co., C. L., grain brok., hay, grain, mill feed.*
Wilson Co., John R., grain brokers.

LOUISVILLE, KY.

Board of Trade Members.
Bingham-Hewett Gr. Co., receivers-shippers of grain.*
Callahan & Sons, receivers and shippers of grain.*
Farmer & Sons, Oscar, hay, grain and feeds.*
Fruechtenicht, Henry, grain, feed, hay.
Kentucky Public Elevator Co., stores and shippers.*
Verhoeff & Co., H., receivers and shippers.*
Zorn & Co., S., receivers and shippers.*

LYNCHBURG, VA.

Moon-Taylor Co., grain and hay brokers.

M'KINNEY, TEXAS.

Reinhart & Company, wheat, corn, oats, maize.*

MARSHALL, MO.

Claiborne Commission Co., commission merchants.*

MEMPHIS, TENN.

Merchants Exchange Members.
Browne, Walter M., broker & com., consignments.*
Buxton, E. B., broker and commission merchant.*
Clark-Burke & Co., grain and hay.
Cook, L. P., receiver and shipper.
Davis & Andrews Co., grain, mixed feed.*
Denyven & Co., brokers and commission.*
Edgar-Morgan Co., mixed feed manufacturers.
International Sugar Feed Co., feed mfrs. and grain.
Lovitt & Co., L. B., cotton seed and peanut products.
Marshall Brokerage Co., strictly brokerage.
Mississippi Elevator Co., grain dealers, feed mfrs.*
Pease & Dwyer, grain, mixed feed.
Quaker Oats Co., feed & cereal mfrs.
Royal Feed & Milling Co., mixed feed mfrs.
Sesum Grain Co., grain, mixed feed.*
U. S. Feed Co., grain, hay, mill feed.*
Wade & Sons, Inc., John, grain, feed, flour.*

MERCER, MO.

Alley Grain Co., oats, corn, wheat, seeds.*

MERIDIAN, MISS.

Board of Trade Members.
Lyon & Co., A. J., whole. gro., grain, feed.
Meyer Bros., wholesale groc., grain, feed.
Sturgis Co., grain dealers, mixed feed mfrs.*
Threefoot Bros. & Co., whole grain, feed, flr., gro.*

MIDDLEPOINT, OHIO.

Pollock Grain Co., grain, hay, straw, earl corn.

MIDDLETOWN, CONN.

Meech & Stoddard, Inc., grain, feed, hay, flour.*

MINNEAPOLIS, MINN.

Chamber of Commerce Members.
Banner Grain Co., grain receivers.
Benson, Quinn Co., grain commission.*

MINNEAPOLIS, MINN., (Continued).

Chamber of Commerce Members.
Cargill Commission Co., grain commission.
Cereal Grading Co., grain merchants.*
Gould Grain Co., receivers and shippers.*
Hankinson & Co., H. L., grain commission.
Malmquist & Co., C. A., receivers & shippers.
Marfield Grain Co., grain commission.*
McCaull Dinsmore Co., consignments solicited.*
Mitchell Co., W. C., grain commission.*
Seidl, Frank J., all grains and feeds.
Sheffield Elevator Co., shippers of grain.
Sterling Grain Co., receivers and shippers all grains.
Van Dusen-Harrington Co., grain merchants.*
Welch Co., E. L., mill oats and screenings.

NEWARK, N. J.

Smith & Wallace Co., J. C., receivers shippers.

NEW CASTLE, PA.

Hamilton Co., grain, feed, flour, hay, potatoes.

NEW ORLEANS, LA.

Board of Trade Members.
Anderson & Jackson, Inc., exporters of grain.*
Barr, R. J., grain exporter.*
Fox Co., C. E., exporters.*
Gibbons, J. T., gr. dealers, mixed fd. mfrs., expts.
Matthews Sons, Geo. B., mill feed manufacturers.*
Nathan & Feltis, fwdg. agt. & expt. fght. broker.*
Neumond, Inc., K. & E., dlrs. & expts. in feed articles.
Richeson Co., Inc., W. L., ext. shpg., fgt. bkg. & fg.*
Rodd & Co., Chas. W., gr. brokers & fwdg. agents.*
Waterman & Co., J. S., gr. flour & fd. bkrs., flr. jobs.*

MOULTRIE, GA.

Delay, A. J., flour and grist mill.

NASHVILLE, TENN.

Grain Exchange Members.
Allen Grain Co., receivers & shippers.*
Allfeed Milling Co., feed manufacturers.*
Kerr, S. S., receiver and shipper.*
Tennessee Grain Co., receivers and shippers.*
Tyner & Co., John A., recvrs. & shippers.*

NEW YORK CITY.

Produce Exchange Members.
Jones & Co., M. R., buyers—quote us.*
Knight & Company, commission merchants.*
Therrien, A. F., broker.

NORFOLK, VA.

Moon-Taylor Co., grain and hay brokers.

OKLAHOMA CITY, OKLA.

Grain Exchange Members.
Cherokee Grain Co., grain merchants.*
Conyers Grain Co., grain merchants.*
Lang Grain Co., J. H., prompt and efficient service.*
Langenberg Bros. Grain Co., grain merchants.
Marshall Grain Co., grain, feed, seeds.*
Moore, George L., grain merchant.
Okla. City M. & E. Co., grain merchants, millers.*
Perkins Grain Co., W. L., brokers.*
Scannell-Winters Grain Co., grain and feed.
Stinnett Grain Co., grain merchants.*
Stowers Grain Co., W. E., commission merchants.
Strader & Co., J. Edgar, grain, hay, feed.*
White Grain Co.

OMAHA, NEBR.

Grain Exchange Members.
Butler Welsh Grain Co., grain merchants.*
Crowell Elevator Co., receivers, shippers.*
Holmquist Elevator Co., receivers and shippers.*
Maney Grain Co., The, consignments.*
Miller Wilson Grain Co., receivers and shippers.*
Roberts Grain Co., Geo. A., grain merchants.*
Stockham Grain Co., E., commission merchants.*
Trans-Mississippi Grain Co., receivers and shippers.*
United Grain Co., grain commission.
Updike Grain Co., consignments.*

OTTAWA, KANS.

Ross Milling Co., The, millers, hard wheat flour.

PAMPA, TEXAS.

McMurtry Grain Co., L. C., wheat, kafir, mlo.*

PEORIA, ILL.

Board of Trade Members.
Bartlett Co., S. C., grain commission.*
Bowen Grain Co., H. D., receivers & shippers.*
Cole Grain Co., Geo. W., receivers and shippers.*
Dewey & Sons, W. W., grain commission.*
Feltman Grain Co., C. H., grain commission.*
Harrison, Ward & Co., receivers & shippers.*
Luke Grain Co., grain commission.*
McFadden & Co., G. C., consignments.*
Miles, P. B. & C. Co., grain commission.*

PEORIA, ILL., (Continued).

Mueller Grain Co., receivers and shippers.*
Shaffer Grain Co., J. C., receivers & shippers.*
Turner Hadnut Co., receivers and shippers.*
Tyng Grain Company, receivers and shippers.*

PHILADELPHIA, PA.

Commercial Exchange Members.
Delp Grain Co., E. D., grain and millfeeds.*
Dunwoody Co., Ezl., flour, grain, feed.*
McKay, Donald, grain and millfeeds.*
Miller & Sons, L. F., grain, seeds, hay.*
Richardson Bros., grain, flour, millfeeds.*
Richardson, Geo. M., grain and feeds.*
Rogers & Co., E. L., hay, straw, grain, feed.*
Standard Hay & Grain Co., grain and hay.*
Stites, A. Judson, grain & millfeed.*
Young & Co., S. H., wheat, corn, oats.

PITTSBURGH, PA.

Members Grain and Hay Exchange.
Allen & Co., H. S., grain & hay.*
Burson Grain Co., C. G., recvrs., shprs-commission.*
Elwood & Co., R. D., hay and grain.*
Foster Co., C. A., grain merchants.*
Geidel & Leubin, grain and hay.*
Hardman & Daker, grain, hay, millfeed.*
Harper Grain Co., corn a specialty.*
Heck & Co., W. F., grain, hay, millfeed.*
McCague, R. S., grain, hay.*
Rogers & Co., Geo. E., grain & hay.*
Smith & Co., J. W., grain merchants.*
Stewart & Co., Jesse C., grain and mill feed.*
Walton Co., Samuel, grain and hay.*

PONTIAC, ILL.

Balbach, Paul A., grain buyer, all markets.

PORTLAND, ORE.

Pacific Coast Elevator Co., grain.*
Pacific Grain Co., grain exporters.*

PUEBLO, COLO.

McClelland McT'l I. & R. Co., grain hay, and feed.*

QUINTER, KANSAS.

Jones-Rogers Grain Co., brokers.

RICHMOND, VA.

Grain Exchange Members.
Beveridge & Co., S. T., grain, hay, feeds, seeds.

ROCHESTER, N. Y.

Dalley Bros., Inc., receivers and shippers.

SAGINAW, MICH.

Saginaw Milling Co., flour, feed, hay, grain.*

SALINA, KANS.

Board of Trade Members.
Baber Grain, Feed & Seed Co., grains, feed, seeds.
Bossemeyer Grain Co., The Paul, grain merchants.*
Richter Grain Co., wheat, coarse grains & millfeed.*
E. L. Rickel, grain receiver and shipper.
Service Grain Co., grain, feed, grain products.
Weber Flour Mills Corp., millers, exporters, grain dlrs.
Wright-Wilson Grain Co., milling wheat.

SALT LAKE CITY, UTAH.

Utah-Idaho Bkg. Co., whole grain, hay, flour, feed.*

ST. JOSEPH, MO.

Grain Exchange Members.
Aunt Jemima Mills Co., A. J., hominy feed.
Claiborne Commission Co., commission merchants.*
Herrles-Yancey Grain Co., commission merchants.*
Marshall Halt Grain Co., consignments solicited.*

ST. LOUIS, MO.

Merchants Exchange Members.
Annan Burg G. & M. Co., flour, grain, millfeed.*
Ballard-Messmore Grain Co., recvrs. grain, hay, seeds.
Bushfield Grain Co., receivers and shippers.*
Claiborne Commission Co., commission merchants.*
Dreyer Commission Co., feeding stuffs, grain, seeds.*
Elmore Schultz Gr. Co., receivers and shippers grain.*
Goffe & Carkener Co., grain commission.*
Graham & Martin Grain Co., grain commission.*
Marshall Hall Grain Co., grain commissions.*
Langenberg Bros. Grain Co., grain commission.*
Morton & Co., grain commission.*
Nanson Commission Co., grain commission.*
Plicker & Beardsley Com. Co., grain and grass seed.*
Toberman, Mackey & Co., grain, hay, seeds.*

SEDALIA, MO.

Claiborne Commission Co., commission merchants.*

Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

SIoux CITY, IOWA.

Board of Trade Members.

Button Co., L. C., grain commission.
McCaull Dinsmore Co., commission.*
Terminal Grain Corp., receivers & shippers.
Rumsey & Co., receivers of consignments.*
Merriam Commission Co., corn and oats.
Western Terminal Elevator Co., receivers and shippers.

SIoux FALLS, S. D.

Burke Grain Co., grain merchants.

SPRINGFIELD, MO.

Claiborne Commission Co., commission merchants.*

STERLING, COLO.

Moore, James A., grain dealer.

TAMPA, FLA.

Bonacker Bros., brokers, grain, hay, feed, flour.

THOMASVILLE, GA.

Burch & Son, W. H., corn millers.

TOLEDO, OHIO.

Produce Exchange Members.
De Vore & Co., H. W., grain and seeds.*
King & Co., C. A., grain and seeds.
Morehouse & Co., wholesale grain and seeds

TOLEDO, OHIO, (Continued).

Southworth & Co., grain and seeds.*
Wickenhiser & Co., John, grain receivers, shippers.
Young Grain Co., grain.
Zahm & Co., J. F., grain seeds.*

TOPEKA, KANS.

Derby Grain Co., wheat, corn, oats, and millfeed.*
Golden Belt Grain & Elev. Co., The, recvrs. & shprs.
Topeka Grain Co., wheat, corn, oats, mill & ctn. feed.

TULIA, TEXAS.

Cowan Grain Co., W. C., wheat, oats, maize, kafir.*

TURON, KANS.

Turon Mill & Elev. Co., corn, wheat, millfeed, flour.

WASHINGTON, D. C.

Wilkins-Rogers Mfg. Co., Inc., receivers and shippers.

WICHITA, KANS.

Board of Trade Members.
Baker-Evans Grain Co., milling and export wheat.
Bever Grain Co., consignments and mill orders.*
Blood Grain Co., I. H., consignments, mill orders.
Claiborne Commission Co., commission merchants.*
Clark Grain Co., C. M., all kinds grain and feed.
Craig Grain Co., J. W., consignments and mill orders.
Foot Grain Co., consignments.
Hall Baker Grain Co., exporters.

WICHITA, KANS., (Continued).

Hayes Grain Co., John, Okla.-Kan., wheat for mills.*
Hipple Grain Co., consignments.
Kansas Flour Mills Co., receivers and shippers.
Kramer Grain Co., receivers and shippers.*
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"Send it to Zahm"
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Like Billy Sunday they deal in cash and futures

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Is a record book designed to afford ready reference to the record of
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Grain Dealers Journal, 309 So. La Salle St., Chicago, Ill.

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Remember us on Rye BALTIMORE, MD.

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C. C. Miles**Established - 1875
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CORN -- OATS -- BARLEY -- RYE

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915-16-19 Chamber of Commerce
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Form 23 is an Indexed Journal, keeps a record of 10,000 wagon loads. Each man's loads are entered on his page. It keeps a record of scale weights. From it both debits and credits are posted to ledger, crediting the customer with the amount received and charging it to the grain's account.

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Flour City Brush Company

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1921



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The Season of Gladness brings memories anew
of our pleasant relations. We appreciate your
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Merry Christmas and Happy New Year

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HUNTLEY MFG. CO., Ltd.
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HUNTLEY MFG. CO.
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SILVER CREEK, N. Y.

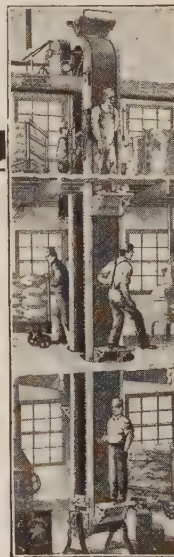
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Alone do not Pre-
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Uninterrupted service year after year as an
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Its Automatic Stop Device, the Electric Silent Chain Drive,
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The Morris Drier has made another great improvement — *an Automatic Dust Collecting Device.*

With this machine in your elevator, you *absolutely do away with every chance of fire and explosion resulting from accumulated dust.*

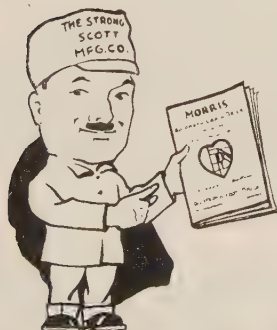
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"Everything for Every Mill and Elevator"

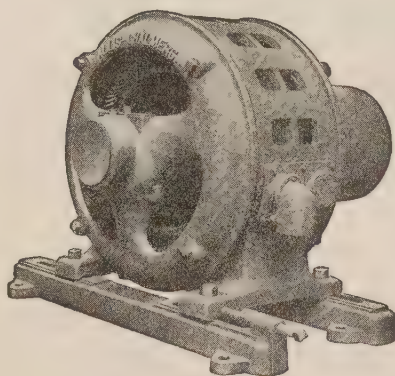
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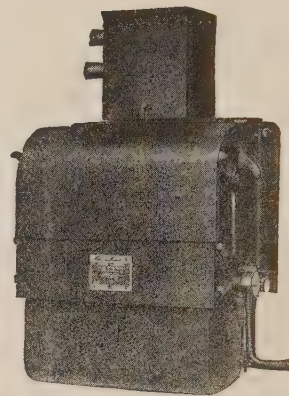


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are built in various types designed to meet the characteristics of the driven machine.

Our experience, covering a quarter of a century in the design, building and commercial application of motors of all kinds is at your service.



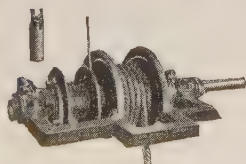
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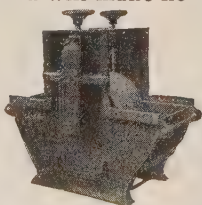
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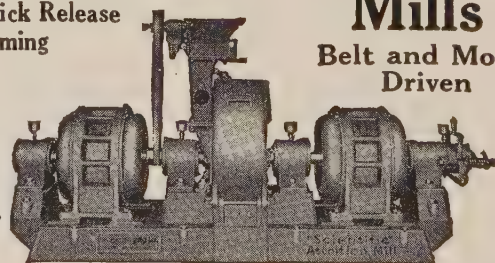
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COSTS LESS PER HOUR

Ball Bearings
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**Attrition
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Belt and Motor
Driven

SAVE
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Time
Money



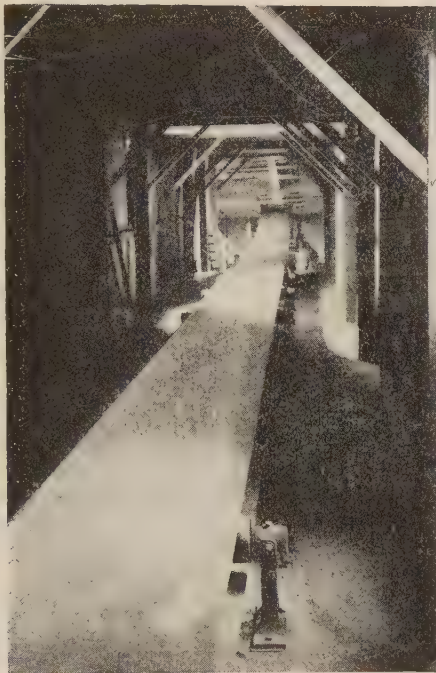
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Costs Less per Hour to Operate

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Whether in large or small grain elevators, an efficient conveying system requires thorough engineering.

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For nearly a half century Webster has been the leader in solving grain elevating and conveying problems and, therefore can design equipment that will exactly meet this specific handling problem which confronts you.



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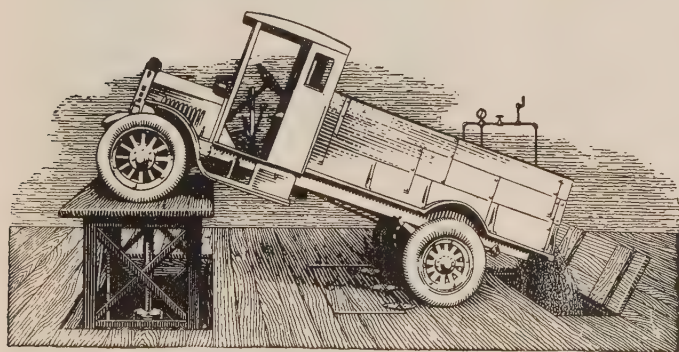
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It looks substantial because it is. It is built of steel and there is nothing to wear out or get out of order.



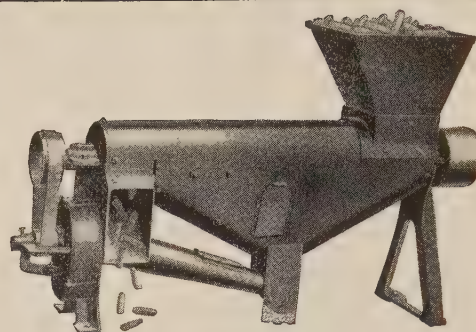
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If you can use a Sheller that will properly shell 75 bushels of corn an hour; and if you want a good simple machine, you'll get just the sheller you ought to have in a Triumph.

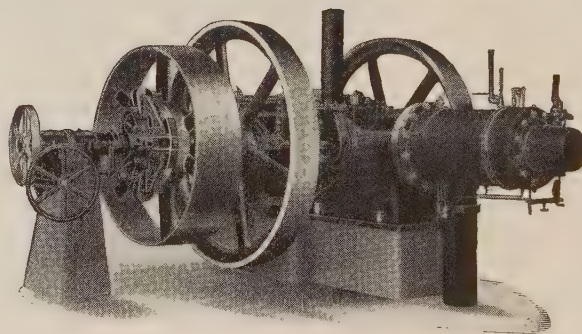
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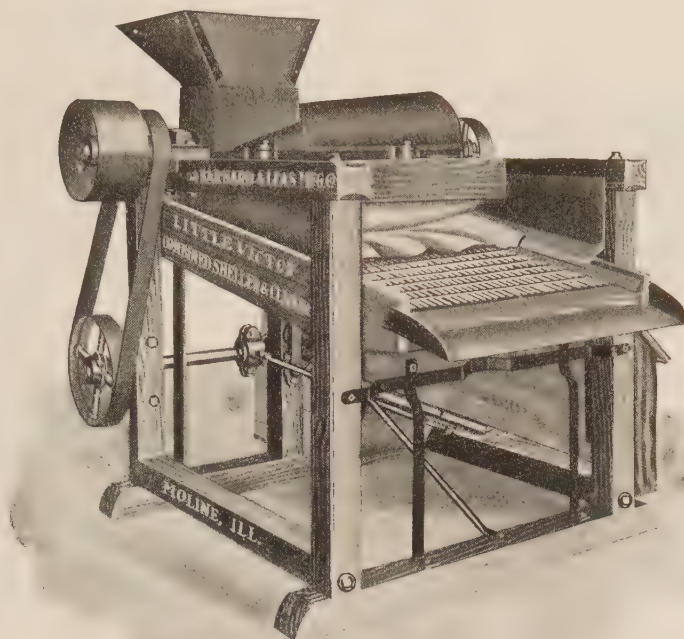


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Shells and cleans corn thoroughly
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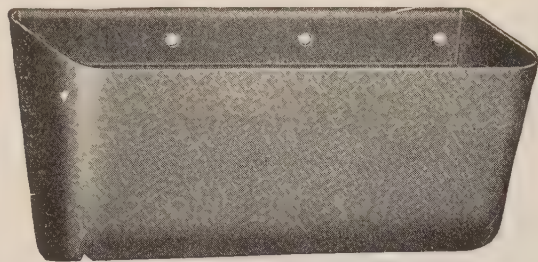
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MILL FURNISHERS**

ESTABLISHED 1860. MOLINE, ILLINOIS, U.S.A.



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For a combination of capacity, durability and economy, these buckets cannot be surpassed. They are "Standard Quality" throughout, backed by the reliability of "Standard Service".



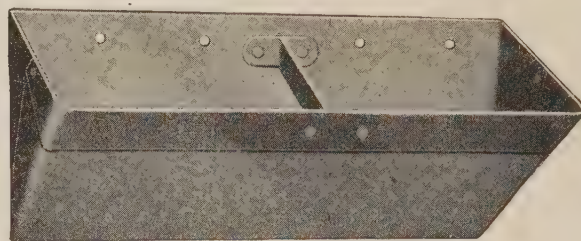
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This bucket is made from one piece of standard gauge steel, giving it tremendous strength and wearing quality. Securely riveted or spot welded at the back; reinforced by back band through which bolt holes are punched. Ends are lapped over main body by forming-dies, making a tight, durable and smooth joint.

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Increase capacity of old style elevators 50% to 100% at exceedingly low expense. Due to the "V" shape these buckets may be placed closer together on the belt, and the head pulley runs about five revolutions per minute faster than with other types of buckets. Durably built throughout, insuring long life and satisfactory service.



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To judge U. S. Value, we ask you to examine it exhaustively, interview owners, compare it with all other shellers.

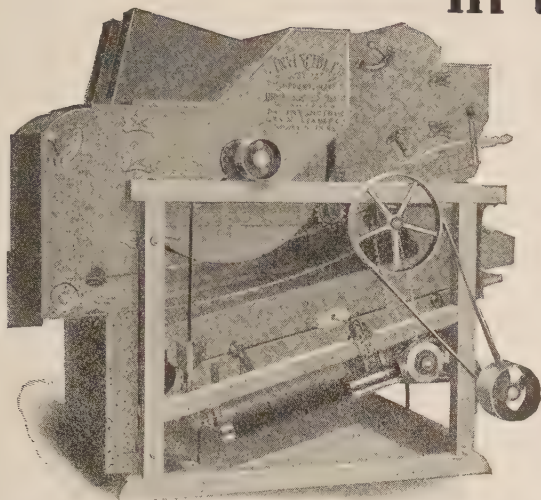
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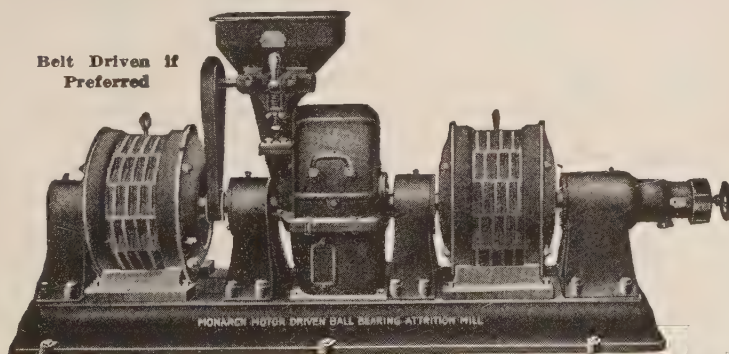
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Impressive evidence of this mill's superiority is the fact that the installation of one machine frequently leads to the installation of several others.

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Grain Receiving LEDGER

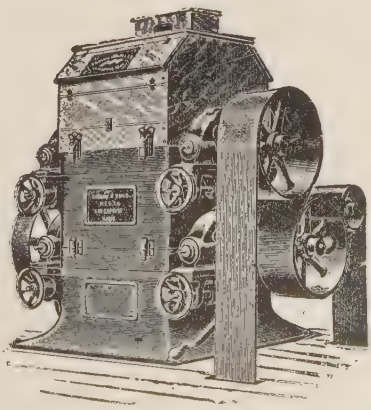
A book designed for use by Grain Buyers who keep individual accounts with farmer patrons. Is ruled for facts regarding wagon loads received. Its column headings being: Date, Article, Gross, Tare, Net, Bushels and Pounds, Price, Debit, Credit and Remarks.

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Grain Dealers Journal

309 So. La Salle St., CHICAGO, ILL.



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Years of experience in this line of work. Write and we will call and give you our proposition and estimate

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GRAIN ELEVATOR BUILDERS

GEO. W. QUICK & SONS
TISKILWA, ILL.
CONTRACTS AND BUILDS
MODERN GRAIN ELEVATORS
STORAGE TANKS and COAL POCKETS
Plans and Estimates Submitted
Correspondence Solicited

MACDONALD ENGINEERING CO.
DESIGNERS AND BUILDERS OF
GRAIN ELEVATORS
San Francisco Chicago New York
149 California St. 53 W. Jackson Blvd. 90 West St.

GEO. A. SAATHOFF
DESIGNER & BUILDER
OF GRAIN ELEVATORS
MAYER HOTEL PEORIA, ILL.

SEND US YOUR INQUIRY

We have the most complete organization in the Northwest for the construction of

GRAIN and COAL ELEVATORS

T. E. Ibberson Company
MINNEAPOLIS, MINN.

Are you in the market for a modern country elevator?

If so our engineering department is at your service. Our record is written in 1200 successful plants. Write us your requirements.

THE STAR ENGINEERING COMPANY, Wichita, Kansas

HICKOK Construction Co. MINNEAPOLIS ELEVATORS

P. F. McALLISTER CO.
ENGINEERS AND CONTRACTORS
Grain Elevators, Driers, Coal Chutes
Wood or Concrete
BLOOMINGTON, ILL.

W.C. BAILEY
Contracts and Builds
Modern Grain Elevators
We can furnish and install equipment in old or new elevators, guaranteeing greater capacity with less power, and positive Non-Chokable working leg.
Let us show you
433 Railway Exchange Bldg., OMAHA, NEB.

A N O T H E R
DESIGNED AND
THE MONOLITH
509 Mutual Building

THORO-BRED
BUILT BY
BUILDERS, INC.
Kansas City, Missouri



Another Reliance Success

Elevators of our design and construction are the best endorsement of our work. We study your particular problems and build the elevator best adapted to your needs. Write us for further particulars.

Reliance Construction Co.
Board of Trade Indianapolis, Ind.

Cover's Dust Protector

Rubber Protector, \$2.00
Sent postpaid on receipt
price; or on trial to responsible
parties. Has automatic valve and
fine sponge.
H. S. COVER
Box 404 South Bend, Ind.



For Accurate Moisture Tests
use our Grain Dealers' Air
Tight Cans for forwarding
your grain samples.
ST. LOUIS PAPER CAN & TUBE CO.
ST. LOUIS, MO.

Fabricated Steel Products

We specialize on FABRICATED STEEL PRODUCTS and are equipped to furnish steel plate products such as tanks, hoppers, stacks, conveyors, chutes, pipe, elevator legs, coal mine equipment, cement and concrete sheet steel forms promptly. Let us estimate on your requirements.

Corrugated Sheets Erected

We are specialists in furnishing and erecting ROOFING & SIDING of galvanized, painted or zinc sheets, corrugated or formed. Our mechanics are experts—they know how. Let us figure on your erection, no matter where located.

Our complete stock of galvanized, black, blue annealed sheet steel and zinc enable us to give immediate attention to all orders and inquiries received.

The Sykes Company
930 West 19th Place Chicago, Ill.

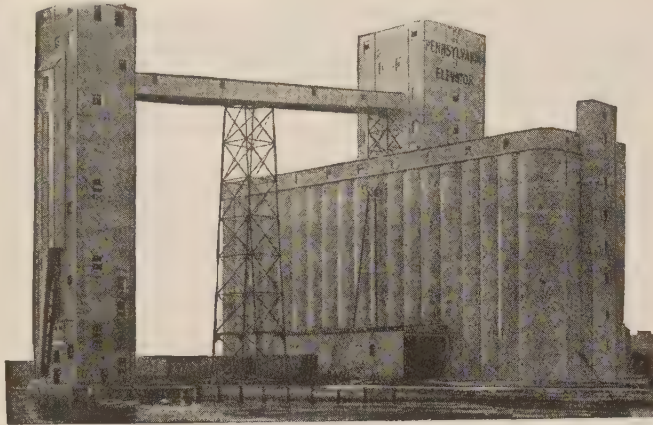
ONE-SHAPE GRINDERS

It PAYS to GRIND ALL GRAINS

Look to the Grinders. They do the work! Bowsher's Cone-Shape grinders are the correct principle in Feed Mill construction. They mean larger grinding surface close to center of Shaft; thus More Capacity, Lighter Draft, Longer Life.

"Desire to express my appreciation of the long-lasting, trouble-proof Bowsher. Have used a No. 4 ten years with less than One Dollar per year for repairs." **E. W. Watt, Jacobsburg, O.**

10 sizes; 2 to 25 H. P. Write for free catalogue.
N. F. BOWSHER CO., SOUTH BEND, IND.



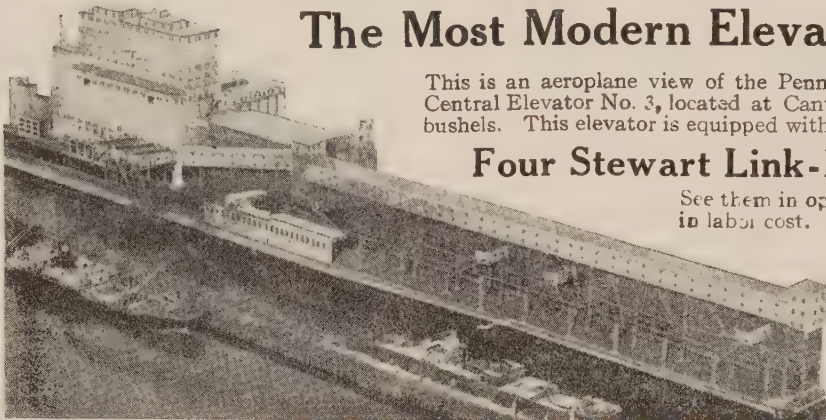
Pennsylvania Railroad Co.'s Terminal Elevator at Erie, Pa. 1,250,000 storage capacity, with marine leg, 25,000 bu. receiving capacity. All concrete, modern construction, with latest improvements.

Designed and built under the direction of

Folwell-Ahlskog Co.

McCormick Bldg. - Chicago, Ill.

Write us for Estimates and Proposals



The Most Modern Elevator in the World

This is an aeroplane view of the Pennsylvania Railroad Company's new Northern Central Elevator No. 3, located at Canton, Baltimore, Maryland, capacity 5,000,000 bushels. This elevator is equipped with

Four Stewart Link-Belt Grain Car Unloaders

See them in operation and be convinced of their great saving in labor cost.

James Stewart & Co., Inc.

Designers and Builders
GRAIN ELEVATORS
In All Parts of the World

Grain Elevator Dept., W. R. Sinks, Manager
1210 Fisher Building, Chicago, Ill.

"We have built for many of your friends, Eventually we will build for you. Why not now?"

GROUP OF TERMINAL ELEVATORS BUILT RECENTLY BY US AT

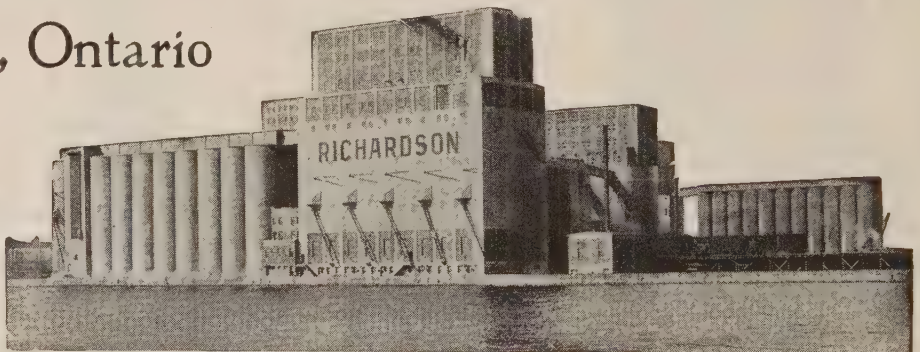
Port Arthur, Ontario

FOR

The Grain Growers' Grain Company Limited.
The Saskatchewan Co-operative Elevator Co., Limited.
The James Richardson & Sons, Limited.

THE BARNETT-McQUEEN COMPANY, LIMITED

Designers and Builders of GRAIN ELEVATORS
Offices: Fort William, Ont., Duluth, Minn.
Minneapolis, Minn.

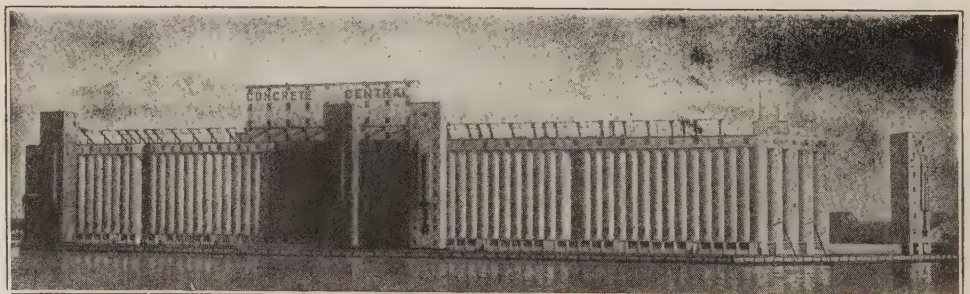


Monarch Built Elevators

assure you economical design, first class work, efficient operation.

SATISFACTION

Let us Submit Designs and Prices

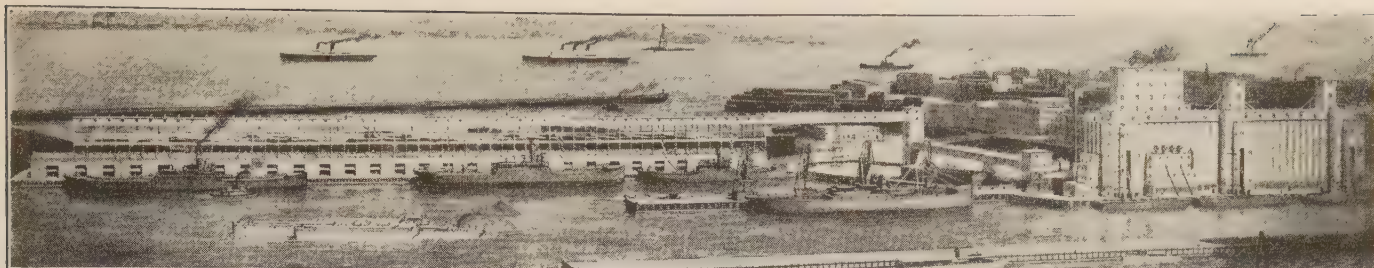


Concrete Central Buffalo, 4,500,000 Bu.

One of the modern houses which has made a record for rapid and economical handling

MONARCH ENGINEERING CO.,

BUFFALO, N. Y.



New York State Barge Canal Terminal Elevator now under construction

\$148,345.00 saved by the State of New York in placing contract for this structure with us.
ADVANCED METHODS—INTENSIVELY DEVELOPED ORGANIZATION—MADE THIS POSSIBLE

FEGLES CONSTRUCTION COMPANY, Limited
Minneapolis, Minn. Fort William, Ontario



Buenos Aires Elevator Co.'s Terminal
Buenos Aires, Argentina

John S. Metcalf Co.

Grain Elevator Engineers

108 South La Salle St.
CHICAGO, ILL., U. S. A.

54 St. Francois Xavier Street
MONTREAL, CANADA

395 Collins Street
MELBOURNE, AUSTRALIA

Calle Maipu 639
BUENOS AIRES

OTTO ENGINES

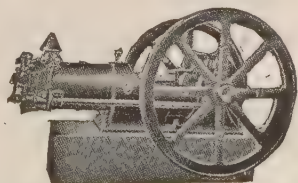
Have proved their superior qualities through years of reliable and economical service. Designed with a view to easy and inexpensive repair or replacement of parts. Cylinder, water jacket and head cast separate, easily and quickly replaced in case of damage by frost, which leaves the inner cylinder intact.

Economy kerosene carburetors for "Otto" engines manufactured and furnished from stock.

If you are interested in stationary engines—gas, gasoline, or kerosene—you need the Otto catalogue. Drop us a postal for your copy.
Models up to 50 H. P. in stock.

Otto Engine Manufacturing Co.

3219 Walnut Street, Philadelphia, Pa.
15-17 S. Clinton St., Chicago, Ill.



You Know

You want to do business with the grain shippers. Tell them so. The Grain Dealers Journal reaches them.

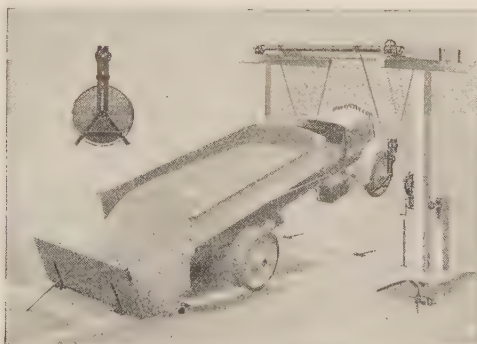
L. J. McMILLIN ENGINEER and CONTRACTOR of GRAIN ELEVATORS

Any Size or Capacity
523 Board of Trade Bldg., Indianapolis, Ind.

FOR
Concrete Elevators
TOWNSEND B. SMITH
Decatur, Ill.

Brandon Construction Company
The Southeast's Foremost ELEVATOR BUILDERS
MARIANNA FLORIDA

TRUCK AND WAGON DUMP

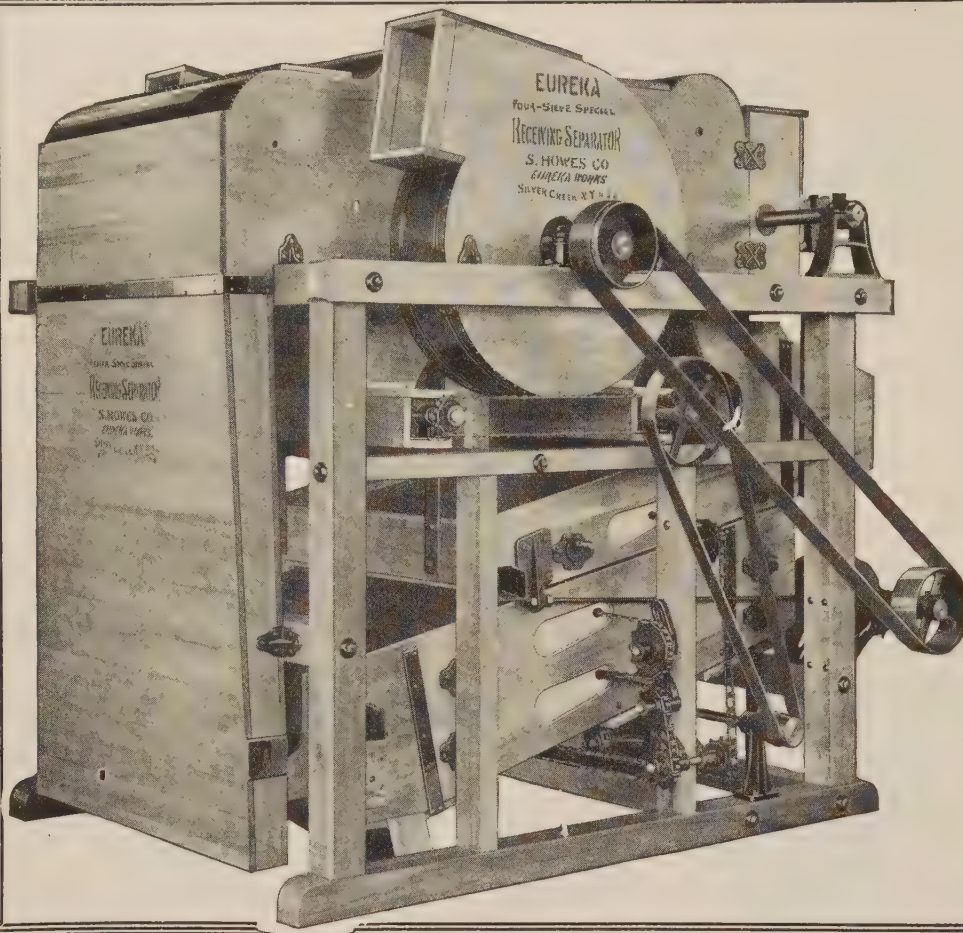


Simple
Durable
Practical
Safe
Inexpensive
Substantial

Easily Installed, Operated by Hand or Power. For further information address

L. J. McMILLIN, 525 BOARD OF TRADE, INDIANAPOLIS, INDIANA
Designer and Builder of Grain Elevators

OUR advertisers are helping us to improve Grain Trade conditions. SHOW YOUR APPRECIATION, Mention G. D. J.



"EUREKA"



This machine does nicer work and more than any other first class elevator separator because it has an extra screen.

Unexcelled as a Receiver; splendid as a Recleaner. As a garlic extractor the Four-Sieve Special is unmatched.

Equipment includes automatic sieve cleaners and automatic disc oiling eccentrics.

Correspondence invited.

S. HOWES CO., Inc.

Eureka Works

SILVER CREEK N. Y.

European Branch:

64 Mark Lane, London, England

St. Marys Oil Engine Co.

ST. CHARLES, MISSOURI

Manufacturers of Deisel Oil Engines for Mills and Elevators

HALL SPECIAL ELEVATOR LEG

Everybody wants superlative capacity, especially when it means no added size or cost. Capacity is wealth. We have so increased capacity in the Hall Special that we attain what is proven to be the greatest elevator leg in the world. THE HALL SPECIAL has sprung at one bound to the pinnacle place. There is nothing to rival it. Each leg is a study. Each leg is a pattern type.



To save grain is to save money. It is prudence, economy and essential to prosperity. Scattering it, wasting it, mixing it, by sloppy distribution, is a crime against the laws, the code and the rules of business. One cannot hit the bull's eye, if his aim is wrong. The Hall Signaling Grain Distributor is automatically precise and accurate, in both aim and discharge. It cannot miss. It saves all the grain and outwears the elevator.

Hall Distributor Company, 222 Railway Exchange Bldg., Omaha, Nebr.

When You Think of Electrical Construction or Repairing—THINK OF

Pierson-Wilcox Elect. Co.
MINNEAPOLIS, MINN.
ESTABLISHED 1898

For elevator and mill supplies we issue a net price catalog. If in the market write us for one.

WHITE ★ STAR ★ CO.
WICHITA, KANSAS

**WHEN EVERY AGENCY FOR
SAFETY OPERATION SAYS
"DO AWAY WITH DUST"
IT'S TIME THAT YOU LISTENED TO REASON—**



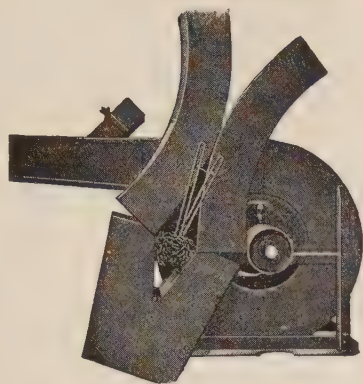
The hundreds of thousands of dollars lost through dust explosions would equip every elevator in the country.

Don't be the next on the "Blow up list," but for the protection of the money invested in your business investigate our product.

**The New "1905"
Cyclone Dust Collector**

THE FACTS ARE MIGHTY
INTERESTING

The Knickerbocker Co.
JACKSON, MICH.



30 DAYS' TRIAL

Small Elevator Plans Free

Suggestive plans for small elevators from 2,000 to 6,000 bushels capacity will be mailed you upon request. These houses are low in height and cost. Grain loaded without scooping and plans include automatic scale, cleaner and Boss Air Blast Car Loader. Just the thing for many small stations.

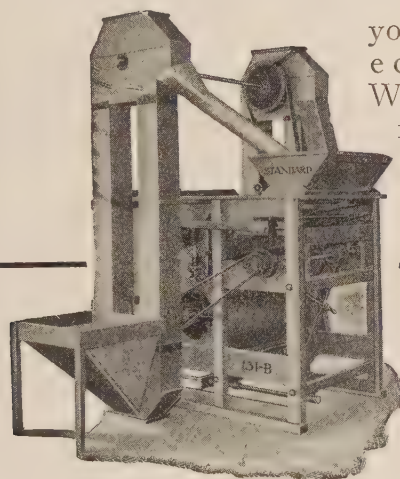
We can also mail plans for small plants for receiving, storing and shipping corn in the EAR without scooping in the car.

You can make your old house modern by installing a Boss Air Blast Car Loader. Every car can then be loaded without scooping. Our Portable outfits meet many needs. Write today outlining your problems. We will send you complete information free.

Maroa Manufacturing Company, Dept. G, Maroa, Ill., U. S. A.

The Progressive Grain Dealer is interested in the cleaner that will effectually do his work with the least trouble and expense. In the

STANDARD



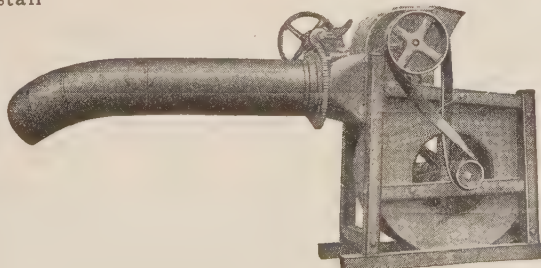
you have embodied simplicity, economy and completeness. Write for our catalogue giving full particulars.

The International Mfg. Co.
CRESTLINE, OHIO

CLEAN AND LOAD IN ONE OPERATION

To make the most money these days the grain elevator operator must operate his plant as economically as possible; he must ship the highest grain possible and it must be clean. To get the maximum in loading facilities and at the same time clean the grain loaded every elevator operator should install

The
Combined
Grain
Cleaner
and
Pneumatic
Car
Loader



It does not mill or crack the grain; fills cars to full capacity; strong, durable, requires no attention after starting. Cools and dries the grain as it passes through the air.

Used by hundreds of elevator owners. List of users will be sent you upon request.

Write for List and Circulars

MATTOON GRAIN CONVEYOR CO., MATTOON, ILLINOIS

KIMBALL ELEVATORS & MANLIFTS



Passenger or Freight
For Grain Elevators & Mills
Electric or Hand Power
Complete Line

KIMBALL BROS. CO.
1129 Ninth Street
COUNCIL BLUFFS, IOWA

Branches: 202 Scott Thompson Bldg., Oklahoma City,
610 Delaware St., Kansas City, Mo.

TYDEN CAR SEALS

Bearing shipper's name and consecutive numbers.

Prevent
CLAIM LOSSES

10,000 SHIPPERS
Are now using them

Write for samples and prices



INTERNATIONAL SEAL & LOCK CO.
Chas. J. Webb, Vice-President
617 Railway Exchange Bldg., Chicago, Ill.



BAD ORDER CARS cause the loss of many hard earned dollars to shippers of grain and seed.

MUCH OF THIS LOSS can be saved by the use of Kennedy Car Liners. These car liners practically condition a bad order car and enable shippers to load cars that otherwise would be rejected.

KENNEDY SYSTEM of car liners prevent leakage in transit and we make Car Liners for all cases of bad order cars, consisting of full Standard Liners, End Liners and Door Liners.

WILL YOU NOT give us an opportunity to submit full details of our system and the low cost of same? We are confident this would demonstrate to you the efficiency and money saving merits of our proposition.

The Kennedy Car Liner & Bag Co.
Shelbyville, Indiana
Canadian Factory at Woodstock, Ontario

Have You Seed For Sale?

Do You Wish To Buy Seed?

See our "Seeds For Sale—Want ed" Department
This Number

Wanted and For Sale

The rate for advertisements in this department is 25 cents per type line each insertion

ELEVATORS FOR SALE.

ELEVATOR, warehouse and coal sheds for sale. Clover Leaf Grain Co., Pleasant Bend, O.

20,000 bushel elevator for sale; large territory to draw from; good crops. Henry Hafner, Menno, So. Dak.

NEBRASKA elevator, new, in good southeastern town, for sale at once; best grain county of state. Address Elevator, 2010 Farnam street, Omaha, Nebr.

SOUTHWESTERN IOWA—Three elevators and loading station. Fine territory; no competition. Good opportunity. Address 47X14, Grain Dealers Journal, Chicago, Ill.

NORTHWEST MISSOURI—Modern 10,000 bu. elevator for sale; good business, good town; no other elevator. \$7,000.00. Address 47Z12, Grain Dealers Journal, Chicago, Ill.

GOOD TIME TO BUY.

Four grain houses, lumber yards in connection; Wisconsin; no competition. Address 47Y5, Grain Dealers Journal, Chicago, Ill.

SOUTHERN OKLAHOMA elevator for sale. Priced right if taken at once. Good coal business; large territory. Write for particulars. 47Y29, Grain Dealers Journal, Chicago.

SOUTHERN INDIANA—15,000-bushel cribbed elevator on private ground in County Seat town for sale. Good grain, flour and feed business. Address A. H. Richner, Crawfordsville, Ind.

IOWA—THREE elevators in north central Iowa for sale. All doing good business and in excellent territory. Price right. Write quick. Address 46M4, Grain Dealers Journal, Chicago.

KANSAS—40,000 bu. elevator; coal and mfg. feeds; corn and wheat territory, in eastern part of state; splendid railroad facilities; good school town. Address 47Y6, Grain Dealers Journal, Chicago, Ill.

CENTRAL INDIANA elevator and coal business for sale. Elev. 20,000 bu. cap.; 5,000 ton coal business; splendid coal sheds. Have to make change on account of health. Address 47Z17, Grain Dealers Journal, Chicago, Ill.

CENTRAL ILLINOIS—20,000 bu. elevator for sale; handles from 150,000 to 240,000 bu. annually; electrically operated; concrete engine house, roomy office, large corncrib for ear corn; price \$6,500. Address 47Z11, Grain Dealers Journal, Chicago, Ill.

OKLAHOMA—Well equipped mill and elevator in good eastern Oklahoma town of 4,000 for sale. A splendid investment opportunity on small capital. Suitable for general grain business, feed and chop grinding, milling, etc. A. W. Orr, 320 Glover Bldg., Kansas City, Mo.

INDIANA 10,000 bushel electric power elevator for sale; will handle 125,000 bu. grain, \$25,000 retail and \$2,500 grinding a year; in town of 400 people; no competition in this town; nearest elevator 6 miles. Best of reasons for selling. This is a money maker. Address 47Z4, Grain Dealers Journal, Chicago, Ill.

KANSAS Elevator practically sold after three insertions. Here's what the advertiser writes: "We enclose check for three insertions of our ad. We have had more than a dozen inquiries from our ad and believe that we will be able to effect a sale." This proves conclusively the value of a Journal Want-Ad.

ELEVATORS FOR SALE.

SOUTHERN MICHIGAN—Line of country grain elevators for sale. Box 64, Scotts, Mich.

CENTRAL IOWA elevator for sale; 45,000 capacity, ironclad and in fine condition. Good territory. Address Y30, Grain Dealers Journal, Chicago.

EASTERN IOWA—Three 18,000 bu. elevators at adjoining stations on the main line of the C. M. & St. P. Modern equipment and in excellent territory. Address 47Z7, Grain Dealers Journal, Chicago, Ill.

NORTHEASTERN KANSAS—Two good elevators for sale; Sante Fe; no competition; good money maker; bargain. Address 47Y9, Grain Dealers Journal, Chicago, Ill.

WESTERN IOWA—TWO elevators at adjoining stations handling grain, coal and feed. One man can handle both with helper. Both modern equipment, and big grain stations. Address 46M7, Grain Dealers Journal, Chicago, Ill.

MISSOURI—15,000 bu. elevator for sale on Wabash R. R., in good territory; electrically operated; only elevator here; carry all side lines; doing good business. Want to retire. Address 47X16, Grain Dealers Journal, Chicago, Ill.

MICHIGAN—20,000 bushel elevator for sale; also coal, lumber and feed business attached. Will sell separately if desired. Good buildings and offices; good farming community. Price reasonable. Onondaga Co-operative Association, Onondaga, Michigan.

N. W. INDIANA elevator for sale, 8,500 bu. capacity, on two railroads, in best corn, wheat, rye and oats country; handle 100,000 bu. annually; town of 500 pop. Price \$6,000.00. This is a good live business. Address 47X30, Grain Dealers Journal, Chicago, Ill.

OKLAHOMA—Modern, up-to-date, cribbed country elevator for sale, with mill buildings and warehouse in connection, on Frisco lines in Oklahoma in a community that raises strictly wheat. Has big trackage, several lots, and best location in town. Address Hunter Mill Co., Hunter, Okla., for price and information.

ALABAMA elevator for sale or rent. Party with \$15,000 can buy elevator, grist mills, corn sheller, two motors, etc., or can buy machinery for \$6,000. Rent \$75.00 per month. City of 12,000, 4 railroads, educational facilities unexcelled. Proposition will bear closest investigation. Address 47Z22, Grain Dealers Journal, Chicago, Ill.

ON AND AFTER January 12, 1922, I will receive bids for the sale of four elevators, located at Roanoke, Mardenis, Simpson and Marble, in Huntington County, Indiana, located in good farming community.

E. P. Beaver, Receiver,
Mardenis Equity Exchange,
Huntington, Indiana, R. R. No. 3.

ILLINOIS 20,000-bu. capacity elevator, located on C., B. & Q. R.R., for sale. Good coal and feed business in connection, with new feed house and coal storage. Elevator in fine condition and equipped with electric power, 2 dumps, 2 scales. Exceptionally fine location. Only elevator in town. Priced right. Address 47S15, Grain Dealers Journal, Chicago, Ill.

ELEVATOR FOR SALE OR RENT.

MINNESOTA elevator of 25,000 bushels capacity for sale or rent. Located on C. M. & St. P. Ry. Coal and Feed business in connection. Address J. J. Dobie, Mapleton, Minn. 46A13.

ELEVATORS WANTED.

INDIANA—Central or northern, elevator of ten or fifteen thousand bu. capacity wanted to rent with privilege of buying. Address 47V12, Grain Dealers Journal, Chicago, Ill.

TO EXCHANGE—Equity in well-improved 100 acre farm in Wayne Co., Iowa, for good country elevator. State value of elevator and capacity. Address 47V28, Grain Dealers Journal, Chicago, Ill.

HAVE store building and residence combined in a good eastern Kansas town that I desire to trade for elevator at some good point. Building has just been replastered and is in good condition. Address 47Z15, Grain Dealers Journal, Chicago, Ill.

LARGE 24 APARTMENT BUILDING, splendidly located in Chicago, well built, splendid condition, practically new; will show a net income of nearly \$800.00 per month; an excellent investment. Will trade for a good mill, elevators, or farm in Ohio. Address 47Y18, Grain Dealers Journal, Chicago, Ill.

ELEVATOR BROKERS.

WRITE G. A. HIRSH, Rossburg, Ohio, if you want to buy or sell an elevator.

JOHN A. RICE **ELMER N. SMITH**
Elevator Brokers, Frankfort, Indiana.

WANT TO HEAR from owner having elevator or other business for sale. State cash price and particulars. John J. Black, 57th St., Chippewa Falls, Wisconsin.

ELEVATORS.

If you want to buy or sell an elevator write Olson Brokerage Co., Oklahoma City, Okla.

CLAYBAUGH-MCCOMAS Offices

Frankfort, Ind. Indianapolis, Ind.
223 B. of T. Bldg. 601 Board of Trade.
If you want to buy, sell or trade an elevator write us at either address.

ALWAYS HAVE ELEVATORS For Sale in the Grain Belt of Illinois and Eastern Indiana. If you are in the market write me fully and I will try to satisfy you.

JAMES M. MAGUIRE,
432 Postal Tel. Bldg., Chicago, Ill

FEED MILL & ELEVATOR FOR SALE.

Located in central northern New York, on main line of through trunk railway with milling-in-transit privileges, reaching the best territory in the east for the sale of mixed cars and its trade-mark products, poultry, dairy and stock foods, etc. The mill is substantially built, equipped with modern machinery and in first class running order. It presents an unusual opportunity to the right person to acquire, at a reasonable cost, a going concern with established trade. Storage capacity of elevators about 125,000 bu., with manufacturing and shipping facilities of three or more cars daily, which may be increased. Private siding; low taxes, insurance, power rates, and good labor at reasonable wages. Present owners desire to sell entire plant and business that they may give personal attention to other large interests. Full particulars may be obtained by addressing inquiries to L. K. Lawyer, 16 Melrose ave., Utica, N. Y.

MILLS FOR SALE.

FLOUR MILL for sale, equipped, capacity 75 bbls. per day; corn and rye, 500 bushels per day; lake, rail shipment. Price \$18,500. Write Industrial Locating Agency & Loan Co., 1619 Ashland Block, Chicago.

MACHINES FOR SALE.

FULL EQUIPMENT for elevator for sale—gas engine, cleaners, shafting and pulleys. Address Box 198, Cicero, Ind.

BOSS CAR LOADERS for sale; several No. 8; good as new; complete, ready to install. Address A. H. Richner, Crawfordsville, Ind.

ATTRITION MILL for sale; new, electric; never installed account selling elvtr. after mill bought. Kinsey Bros., No. Manchester, Ind.

DO YOU WANT A MACHINE that is not advertised here? Make your wants known in the "Wanted" columns. Someone has the machine you want, but has not started advertising it for sale in the Grain Dealers Journal.

J. L. OWENS CLEANER for sale; new Dual No. 50, with complete set of sieves for cleaning wheat, oats, barley, corn and flax. Will sell cheap. Address Schultz Bros., Wentworth, S. D.

DURABLE WIRE ROPE for sale, for car shovels; cast or plow steel. Manila rope, buckets and everything in elevator supplies.

PULLEYS—1,000—for sale. ALL sizes, solid cast iron, wood and steel split. Standard Mill Supply Co., Kansas City, Mo.

FOR SALE.

Used Midgets, all sizes
Corn Rolls, all sizes
10 Receiving Separators
2 Williams Ball Bearing Grinders & Pulverizers
6 Corn Shellers
5 Oil Engines
H. C. Davis, Bonner Springs, Kansas.

FOR SALE.

1 4 compt. O. B. D. Moisture Tester complete; elec. heat 110 volt.
1 Boerner Sampling Device.
1 R. C. Fairbanks weight per bu. apparatus.
1 each wheat and corn sieve; 1 grain trier; three sampling pans. For tester—flasks, thermometers, condensing tubes, graduates and rubber stoppers.
None of equipment ever used. Will sell 15% less than regular dealers' prices, f. o. b. San Antonio.
Blue Star Elevator Co., San Antonio, Texas.

REAL BARGAINS.

Prompt Attention. **Quick Shipments.**
When in need of elevator or mill machinery, notify us. We are headquarters for power and transmission equipment, and have on hand several well-known makes of motors, boilers, engines, etc.

Send us list of all your wants. We can supply you with full line of machinery for elevators, flour, corn and cereal mills. Complete equipments for modern mills of all kinds, molasses, stock, and poultry feed plants, plans, specifications, flow sheets, etc., our specialty.
Write us without delay.
Geo. J. Noth, Mgr.,
9 S. Clinton St. Chicago, Ill.

MACHINES WANTED.

WANTED—To buy a 50 barrel Midget Marvel or 20th Century Flour Mill. Address Farmers Grain & Elevator Co., Groom, Texas.

FEED GRINDER wanted; good second-hand single disc; motor driven preferred. Motor must be two phase A. C. Humphrey Bros., Normal, Ill.

FEED GRINDER wanted; 40 to 60 barrel capacity; good. One set steam governors for Atlas engine, size 2½ inches. The Woodbury-Elliott Grain Co., Muncie, Indiana.

OIL AND GAS ENGINES.

GAS ENGINE for sale; 25 h.p. International Mogul, equipped to use kerosene, gasoline or natural gas. Price \$750.00 f.o.b. El Dorado, Kans. L. H. Powell & Co., El Dorado, Kansas.

PRIMM OIL ENGINE, 35 h.p., No. 418, 250 R.P.M., in fair condition; also one Power Clipper Seed Cleaner No. 116, in good condition. Will sell low for cash. Hull Bros., Larwill, Ind.

FAIRBANKS-MORSE—One 32 h.p. kerosene or crude oil, electric light type. One 12 h.p. kerosene or gasoline fuel. The above engines are in good shape with fuel tanks. Write for detailed descriptions and prices. O. A. Talbott & Co., Laclede, Mo.

BUSINESS OPPORTUNITIES.

EXPERIENCED GRAIN EXPORT man familiar trade tributary Gulf, wishes work joint account or salary. Address Y33, Grain Dealers Journal, Chicago.

FOR SALE—Good grain business on the Missouri River, with Board of Trade membership and interests in country elevators. A good proposition. Requires \$9,000.00. Address 47Z13, Grain Dealers Journal, Chicago, Ill.

RETAIL FLOUR, Feed & Ice business for sale; no competition; storage on tracks; retail house center of town; located in Osage Nation, Oklahoma. Steady oil production; many wells yet to be drilled. Price \$4,000.00. Address T. F. Jameson, 509 W. 3rd st., Coffeyville, Kans.

INVESTMENT WANTED? If you are desirous of securing more capital for the extension of your business, or if you have money to invest in the grain business, make your wants known in the "Business Opportunities" columns of the Grain Dealers Journal, Chicago.

ONE-HALF INTEREST in Indiana elevator and feed business for sale; can give best of reasons for selling and show you one of the best paying grain and feed businesses in this state. If you are looking for a grain and feed business it will pay you to investigate this. Address 47Z3, Grain Dealers Journal, Chicago.

OLD ESTABLISHED FEED BUSINESS in large eastern Pennsylvania city for sale, doing big local business. Complete milling and mixing equipment. Private Ry. siding and milling-in-transit facilities available. Big opportunity. Would make an ideal eastern branch for large concern. Address 47Z20, Grain Dealers Journal, Chicago, Ill.

WILL SELL HALF INTEREST in my elevator and feed business, located in one of the best farming districts in Indiana. Want to branch out and need more capital and an active partner, one as essential as the other. One of the best paying propositions you will find. This will bear the closest investigation. Address 47X10, Grain Dealers Journal, Chicago, Ill.

ADDRESS WANTED.

DESIRE TO KNOW present address of L. D. Mitchell, formerly of Paris, Ky. Address 47Y3, Grain Dealers Journal, Chicago, Ill.

PARTNERS WANTED.

WANTED: A competent and reliable partner. Can you fill the bill? Make your qualifications known thru the columns of the Journal.

ONE-HALF INTEREST in Indiana elevator and feed business for sale; can give best of reasons for selling and show you one of the best paying grain and feed businesses in this state. If you are looking for a grain and feed business it will pay you to investigate this. Address 47Z2, Grain Dealers Journal, Chicago.

WILL SELL HALF INTEREST in my elevator and feed business, located in one of the best farming districts in Indiana. Want to branch out and need more capital and an active partner, one as essential as the other. One of the best paying propositions you will find. This will bear the closest investigation. Address 47X11, Grain Dealers Journal, Chicago, Ill.

FLOUR FOR SALE.

MIXED CARS of flour and mill feeds in 100 pound sacks are our specialties. We are now manufacturing a full line of corn goods, cracked corn, feed meal, corn and oats chop, Ohio Farm feed, shelled corn and standard oats in connection with our flouring mill. Would like to send you a trial to convince you of the superiority of our products. Ansted & Burk Co., Springfield, Ohio.

BAGS—BAGGING—BURLAP.

BURLAP BAGS OF EVERY KIND FOR SALE; new or second-hand, plain or printed with your brand; seamless Cotton Grain Bags; Sample Bags; Burlap, Cotton Sheeting or Paper for Car Lining, etc. Wanted: Second-hand bags, best prices paid.
WM. ROSS & CO., 409 N. Peoria St., Chicago.

DYNAMOS—MOTORS.

WAGNER—One 20 h.p. single phase, 60 cycle, 220 volt, 1100 r.p.m. Motor in A-1 condition. For full details and prices write O. A. Talbott & Co., Laclede, Mo.

STEAM ENGINE FOR SALE.

BARGAIN FOR QUICK SALE.
One 65 h.p. Center Crank Steam Engine with 80 h.p. High Pressure Boiler (new). Also Double Cylinder Snow Pump and all pipe connections, in first class condition. Write Farmers Union Co-op. Ass'n, Maple Hill, Kansas.

Give These to Your Trade

Books FREE TO YOU!



Thousands of requests are coming from farmers for these highly serviceable books, "Simple Instructions for Butchering on the Farm" and "Recipes for Curing Meat." These books will bring this year's big meat salt business to your store.

Tell us today—how many books of each kind you can use. We print your name and address on the front cover and ship the books FREE of charge to you.

CAREY-IZED SALT

Extensive advertising now running in the Country Gentleman, Successful Farming, Capper's Farmer and all leading state farm papers. Your customers will want these books showing:

- How to Select Stock.
- Treatment Before Slaughtering.
- Correct Ways to Slaughter.
- Dressing and Skinning.
- How to Chill.
- How to Cut Meat.
- Knives Commonly Used.
- Working Pictures and Other Facts.

Send for Your Supply Today

THE CAREY SALT CO., Hutchinson, Kans.

SEEDS FOR SALE—WANTED

CHOICE seed corn, oats and barley for sale; car lots or any quantity. Write for samples and prices. Allen Joslin, Holstein, Iowa.

THE BEST dependable varieties of seed corn and seed oats for sale, in any quantity, carload or less. Write for prices.

Square Deal Seed Farm,
Allen Joslin, Prop.,
Holstein, Iowa.

OFFICE APPLIANCES.

PROCTOGRAPH for sale; never used; good as new. A. J. Scheer, Wildrose, N. D.

SAFES—Large stock of new and used safes on hand. Protect your valuable papers. Prices reasonable. The Howe Scale Co. of Ill., 512-514 St. Charles St., St. Louis, Mo.

HELP WANTED.

THE SMALL EXPENSE incurred through the placing of an advertisement in the Grain Dealers Journal is more than compensated for by the results obtained

SITUATIONS WANTED.

WANTED—Position as grain inspector. Address 47Z18, Grain Dealers Journal, Chicago.

POSITION as manager of retail grain business wanted. Best of references furnished. Address 47Y16, Grain Dealers Journal, Chicago.

MANAGER—14 years' experience, married, 39 years old, wants position as mgr. Farmers Elevtr. Co. with good business. Have clean record. Address 47X21, Grain Dealers Journal, Chicago.

POSITION as manager or bookkeeper wanted; eight years with farmers elevator; can handle grain, lumber and side lines; fine references and record. Address 47Z5, Grain Dealers Journal, Chicago.

EXPERIENCED OFFICE EXECUTIVE and accountant considering making change. Married. University education. Now connected with grain, feed and flour business. Address 47W16, Grain Dealers Journal, Chicago.

A1 MANAGER desires position in the grain trade; 5 years' experience; farmers elevator or line house preferred; high school and college training; can handle any community; age 37; A1 references. Peter Kruse, Pesotum, Ill.

MAN with 10 years' experience in the grain and feed business wants position with good firm. Have three years' road experience, also transit house and general office work. Well acquainted throughout Ohio, W. Va., Penn. Can begin Jan. 1st. Address Y34, Grain Dealers Journal, Chicago.

JUNIOR TRADER or **MANAGER** of cash grain dept.; thoroughly qualified; age 29; experience 4½ years terminal elevators, in service 2 years with 35th Division, 1919 season with grain corporation as supervising inspector, 2 years with large mixed feed mfrs., and at present branch manager of transit warehouse; desire new connection first of year; best of references as to personality, ability and judge of grain. Think it over. Does your house need some young fighting blood to help withstand present keen competition? Address 47Z6, Grain Dealers Journal, Chicago, Ill.

SITUATIONS WANTED.

YOUNG man 33 years old, 14 years' experience as mgr. of lumber, grain, coal and millfeed business, wants position; with present firm past 6 years; best of reasons for making change; excellent references. Will make personal call to parties who mean business. Address 47Y19, Grain Dealers Journal, Chicago.

POSITION WANTED—Married man, 9 years' exp. in grain business as foreman of mill elev., mgr. far. elev., line elev. and retail feed business. Best references. Would not consider job unless chance for steady employment if work pleases and chances for advancement good. Address 47Z16, Grain Dealers Journal, Chicago.

TRACK BUYERS, GRAIN AND FEED BROKERS AND DEALERS—Fifteen years' experience branch offices futures and cash grain, freight and passenger agency departments railroads, claim, collection and adjustment knowledge, good working knowledge of law, trained Chamber of Commerce secretary. Married, age 38. Especially desire to hear from party feeling need of man relieve them of responsibility. Will go anywhere. Opportunity, not salary, first consideration. Now employed. Can make reasonably quick change. Write or wire 47Z19, Grain Dealers Journal, Chicago, Ill.

COW PEAS**Agricultural Seed Company**

Representing 57 Years'
Continuous Seed Service

Main and O'Fallon Sts. ST. LOUIS, MO.

The Mangelsdorf Seed Co.

Sweet Clover, Alfalfa,
Soudan Grass, Millet, Rape.

ATCHISON

KANSAS

Crabbs Reynolds Taylor Company

CRAWFORDSVILLE, INDIANA

Buyers and Sellers
CLOVER AND TIMOTHY SEED—GRAIN

HAY WANTED.**Field and Grass Seed Trade Directory****ARNHEM, HOLLAND.**

Wm. E. Busgers & Co., European fancy natural gr. sds.

ATCHISON, KANS.

Mangelsdorf Seed Co., The, wholesale seeds.

BALTIMORE, MD.

Wm. G. Scarlett & Co., wholesale seed merchants.

BUFFALO, N. Y.

Stanford Seed Co., Inc., The, wholesale field seeds.
Whitney-Eckstein Seed Co., wholesale seeds.

CHICAGO, ILL.

Dickinson Co., The Albert, seeds.
Illinois Seed Co., The, grass and field seeds.

CINCINNATI, OHIO.

McCullough's Sons, The J. M., field and garden seeds.

CONCORDIA, KANS.

Bowman Bros. Seed Co., field seeds.

COUNCIL BLUFFS, IOWA.

Ouren Seed Co., wholesale seeds and grain.

CRAWFORDSVILLE, IND.

Crabbs Reynolds Taylor Co., grass and field seeds.
Crawfordsville Seed Co., seed merchants.

ELKHART, KANS.

Muncy & Carson, grain and seeds.

KANSAS CITY, MO.

Peppard Seed Co., J. G., wholesale seeds.
Tobin Seed Co., alfalfa—bluegrass.

LOUISVILLE, KY.

Hardin, Hamilton & Lewman, grain & field seeds.
Louisville Seed Co., clover & grasses.

MERIDIAN, MISS.

Kimbrough Mitchell Seed Co., Southern seeds.

MILWAUKEE, WIS.

Courteen Seed Co., field seeds.
North American Seed Co., wholesale grass & field seeds.

MINNEAPOLIS, MINN.

Dickinson Co., The Albert, seeds.

NEW YORK, N. Y.

Julius Loewith, Inc., grass & field seeds.
Nungesser-Dickinson Seed Co., wholesale seed merchants.

PHILADELPHIA, PA.

Philadelphia Seed Co., Inc., The, wholesale field seeds.

ST. JOSEPH, MO.

Mitchellhill Seed Co., clover, grasses, sorghums.

ST. LOUIS, MO.

Agricultural Seed Co., cow peas.
Mangelsdorf, Ed. F. & Bro., wholesale field seeds.

ST. PAUL, MINN.

Jameson Hevener Co., shippers of field seeds.

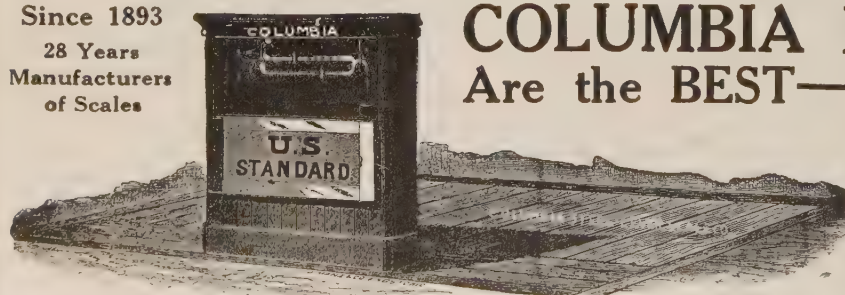
SIOUX FALLS, S. D.

North Western Seed Co., wholesale field seeds.

TOLEDO, OHIO.

Churchill Grain & Seed Co., field seed, pop corn.
Flower Co., The S. W., seed merchants.
Hirsch, Henry, wholesale field seed.
Toledo Field Seed Co., The, clover, timothy.

Since 1893
28 Years
Manufacturers
of Scales

**COLUMBIA MOTOR TRUCK SCALES**
Are the BEST—"SAVE REPAIR BILLS"

Because they are easy to build, simple in construction, well made and retain their accuracy longer than any scale on the market. COLUMBIA SCALES are being used by practically every feed, coal, ice and material dealer in Chicago. THERE MUST BE A GOOD REASON.

Telephone Albany 4
2437-43 N. Crawford Avenue

COLUMBIA SCALE COMPANY

F. Beuckman & Son, Props.

CHICAGO, ILLINOIS

Save money and send for list of our guaranteed rebuilt scales. All makes and capacities. Tell us what you want. Let us repair your scales—any make. We also carry parts. Finest equipment for scale work in Chicago.

SEEDS FOR SALE—WANTED

WHITNEY-ECKSTEIN SEED CO.
Wholesale Seed Merchants
BUFFALO, N. Y.
CORRESPONDENCE INVITED

Council Bluffs Seed Co.
SEED CORN--NOTHING ELSE
Standard Iowa and Nebraska
Varieties. Ensilage
Council Bluffs Iowa

The Stanford Seed Company, Inc.
Wholesale Field Seeds ∴ **BUFFALO, N. Y.**

The Toledo Field Seed Co.
Clover and Timothy Seed
Consignments solicited Send us your samples
TOLEDO, OHIO

HEADQUARTERS
on all
Imported
Clover
Grass and Field
SEEDS

Julius Loewith, Inc.
150 Nassau Street New York, N. Y.
(Formerly Loewith, Larsen & Co.)

COURTEEN SEED CO. Milwaukee, Wisconsin
Clover, Timothy, Grass Seed
Grain Bags

The J. M. McCullough's Sons Co.
BUYERS — SELLERS
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CINCINNATI - - OHIO

Missouri Grown Blue Grass
Kansas Grown Alfalfa, New Crop
We are now prepared to accept orders for both
TOBIN SEED CO.
KANSAS CITY, MO.

THE ILLINOIS SEED CO.
CHICAGO, ILL.
WE BUY AND SELL
Field Seeds
Ask for Prices
Mail Samples for Bids

North American Seed Co.
WHOLESALE GRASS & FIELD SEEDS
Milwaukee, Wisc.
"THE HOUSE OF QUALITY"

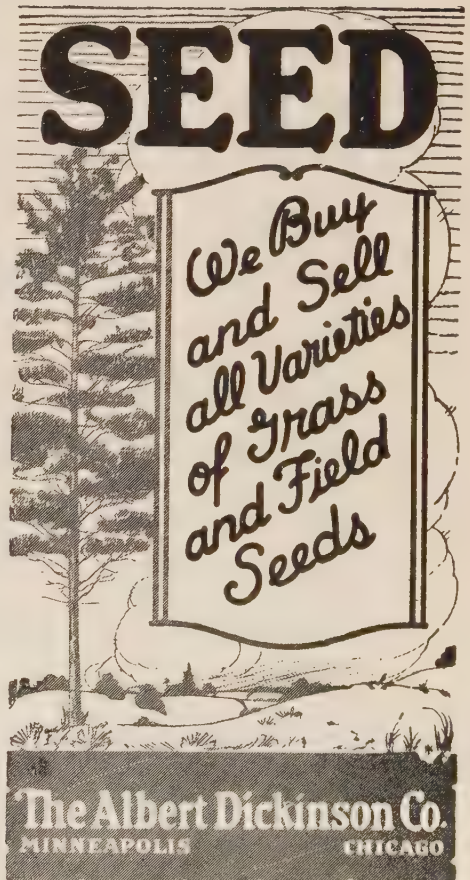
HENRY HIRSCH
WHOLESALE FIELD SEEDS
CLOVER — ALSIKE — TIMOTHY — ALFALFA
Our Specialty
All Other Field Seeds
TOLEDO - - OHIO

CRAWFORDSVILLE SEED COMPANY
CRAWFORDSVILLE, INDIANA
We are in the market for Red Clover. We can use seed
mixed with Buckhorn. Mail samples with lowest prices.
Members Wholesale Grass Seed Dealers' Association.

IMPORTERS EXPORTERS
GRASS and CLOVER SEED
Buyers and Sellers of Timothy, Red Clover,
Alsike, Alfalfa, White Clover, etc.
NUNGESSER-DICKINSON SEED CO.
New York, N. Y., U. S. A.

LOUISVILLE SEED COMPANY
INCORPORATED
LOUISVILLE, KY.
Headquarters for
RED TOP AND ORCHARD GRASS
BUYERS AND SELLERS
OF ALL VARIETIES FIELD SEEDS

The S. W. Flower Co.
WHOLESALE
FIELD SEED
MERCHANTS
SPECIALTIES
RED CLOVER, TIMOTHY
ALSIKE
TOLEDO
OHIO



SEED

*We Buy and Sell
all Varieties
of Grass
and Field
Seeds*

The Albert Dickinson Co.
MINNEAPOLIS CHICAGO

BENTLEY, KAN.—We read the Grain Dealers Journal regularly and certainly enjoy its articles.—J. A. Armour.

Opportunity

Now if ever is the time when every man in America should be a booster and a builder. Thinking prosperity and talking it, together with "the everlasting team work of every bloomin' soul", will be absolutely certain to hurry it along. If the press, business men, economists, and governmental agencies of the United States will work together with will-power and determination they can fill the land with twirling spindles and with turning wheels. The outlook for a great world trade was never better. It will take skill, enthusiasm, perseverance, optimism, knowledge of world conditions, and a greater economic unity of nations to get it in a large and permanent way. Combined they will secure for America the largest trade ever enjoyed by any country, and we'll continue the creditor nation for generations yet to come. And in this commanding position we will be better able to teach and scatter the blessings of that larger liberty which comes to a people living under democratic institutions, under governments which they themselves create. Therefore, every man to the oars, and all pull together.

Lowell Hoit & Co.

GRAIN DEALERS JOURNAL

309 So. LaSalle Street, Chicago, Ill., U. S. A.
Charles S. Clark, Manager

Published on the 10th and 25th of each month in the interests of better business methods and improved handling facilities for progressive wholesale dealers in grain and field seeds.

SUBSCRIPTION RATES to United States, semi-monthly, one year, cash with order, \$2.00; two years, \$3.60; three years, \$5.00; single copy, 15c.

To Foreign Countries within the Postal Union prepaid, one year, \$3.25; to Canada and Mexico, \$2.75.

THE ADVERTISING value of the Grain Dealers Journal as a medium for reaching progressive grain dealers and elevator men is unquestioned. The character and number of advertisements in each number tell of its worth. If you would be classed with the leading firms catering to the wholesale grain trade, place your announcements in the Journal.

Advertisements of meritorious grain elevator machinery and supplies and of responsible firms who seek to serve grain dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain trade, news items, reports on crops, grain movement, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. Address "Asked-Answered" department. The service is free.

CHICAGO, DECEMBER 25, 1921

WHEN that German scientist gets his synthetic gold plant into quantity production a lot of folks will want an opportunity to help wind the watch on the Rhine.

WAR TAX on freight charges will die with the old year. Everybody, from the boss to the invoice and account sales clerk, will welcome this smoother stretch on the road to normalcy.

MARKETING plans created out of thin air and spongy promises have at least one physical characteristic. When the supply of gas runs low they settle to the earth just like other balloons.

THE FIRST deficiency bill introduced in congress for the fiscal year ending June 30, 1922, carries \$106,825,000. And so the bureaucrats spend the money and then ask congress to make appropriations to pay the bills. Who runs this country?

COMBINATIONS tending to eliminate competition and assisting to increase prices are illegal and contrary to public policy in one case. Why not in all? All citizens should be governed by the same laws. No exclusive set should be excepted.

THE provision in bills of lading specifying a time limit within which claims for loss and damage must be filed has been upheld by the Supreme Court and declared valid. The same holds true as to the requirement regarding institution of a suit. To fail in observance of the time limit may make waste paper out of otherwise good and collectible claims. Get busy.

A CHRISTMAS greeting to farmer friends affords every country grain buyer the means of expressing his appreciation of the patronage given during the year. Try it.

WANT a 100,000-bu. elevator located where about half its capacity will be always idle. Of course not—but men otherwise possessed of good sense have built elevators like that in recent years.

NOTHING in the Constitution contemplates the use of funds or powers derived from the whole citizenship for the special benefit of any class or portion of the citizenship. It is merely a question, then, whether we purpose to be guided in government by the Constitution as we formerly were or by the desires of a class as we now are.

PAYMENTS of 60% have been made on pooled spring wheat which the pool is holding for higher prices. Sixty per cent of what? If an advance or loan has been made against the security of the pooled grain, why not call it that? Why say the farmers have received a 60% payment? It is conceivable that "60%" may become 100% when the time arrives for final settlement of the pool.

NORTH DAKOTA'S new senator signalizes his entry into Congress just as many others of his bucolic predecessors have done, by having a resolution adopted for an investigation of the grain markets. As the older senators are already well informed thru the numerous prior investigations of the grain trade, Mr. Ladd's resolution of Dec. 22 for still another inquiry, into the grain export market, was no doubt the fruit of senatorial courtesy.

AND NOW the U. S. Grain Growers, Inc., wants an investigation by the federal government of the export grain trade in order that the "real reasons for the present ruinous prices may be determined." A few months ago the U. S. G. G. told how it would get its own information, truthful information, so the farmers would no longer be required to rely on such facts as those gathered by governmental agencies. Is it possible they cannot believe even themselves?

GRAIN LOANS by the War Finance Corporation are of far more value to the small banks in the surplus grain producing sections than they are to the growers. All so called frozen loans can be taken over by the Corporation, relieving the banker from the necessity of forcing liquidation. This action by the War Finance Corporation is thus seen to be a discrimination in favor of long time loans on farm product collateral as against factory product collateral. Why discriminate?

FREIGHT CARS to the number of 531,337, idle on Dec. 15, "because of business conditions," reflects clearly the business stagnation that exists. When it is considered that this number is 191,805 more than the figures only one week earlier it shows that the situation is growing worse rather than better. It would be interesting to know just how much of this stagnation is due to high freight rates—and to the farcical display of side stepping that the carriers and the I. C. C. are doing in delaying the reductions that are needed.

NEXT to finding in the Bible some passage apparently supporting almost any doctrine or theory one may care to advance, the easiest of all tasks is that of the demagogue and agitator who sets out to enlist proponents of his schemes to get something for nothing.

MOISTURE tester users will be much interested in the findings of the chemists of the Larabee Flour Mills which are presented at length in last number. Their suggestion for remedying the trouble merits the prompt action of everyone depending upon the tester for accurate results.

A LITTLE JOB like fixing the prices of farm products is to be the chief task of a new farm organization which recently came into being in North Dakota. The "fixers" will charge a membership fee of \$25 and if enuf members can be obtained the proceeds should fix a very nice lining in the pockets of the few who are in control.

A BOARD to determine the acreage of wheat to be left for harvest each year is proposed by somebody in the Southwest as a means to avoid over production and low prices. Will the persons who are competent to discharge the duties incumbent upon a member of that board please come forward and assemble on the point of the sec'y's fountain pen?

ANOTHER "farmers' strike" is being talked of. This time it is directed to an effort to reduce the acreage of corn next year, and at least one organization of farmers has recommended thru action of its executive com'tee that the reduction be made. The agitator has more lives than the proverbial cat. Otherwise the experience in advising Kansas farmers to hold wheat a year or so ago would have killed him dead enuf to last for a time. The really remarkable fact, however, is that farmers continue to listen to the buncombe that is fed them; and so long as they listen just that long will they continue to pay the penalty as they are now paying it.

ANOTHER effort at governmental control of wheat is to be asked for by the Farmers National Council. Of course it will not receive the approval of congress, because there are sensible persons remaining in that body, but the scheme is worthy of passing notice as it reflects the continued existence of badly diseased minds. Wheat control in peace time would be a more dismal failure than that of the war period. Without war conditions as stimuli, and with a few countries other than the United States producing surplus quantities of wheat, we as one nation will have much fun telling the world that our wheat is worth about twice its actual value.

GREETINGS.

The Staff of the Grain Dealers Journal extend a most cordial greeting to the members of the Grain Trade for a Prosperous, Happy New Year, free from worry and loss. We hope the New Year will bring peace, joy and contentment to all the trade.

MUCH grain has long been held in box cars at Galveston not alone because of the lack of elevator space, but principally because buyers did not have the grain sold, so wished to force shippers to assume the responsibility for its deterioration so long as possible. No one will attempt to defend such an unfair practice, but it will be continued until shippers refuse to sell unless subject to the following condition: "The grade of grain will not be guaranteed beyond first inspection unless reinspection is called within 48 hours of the day of arrival." Such a rule is in vogue in a number of markets and in fairness to all should be enforced everywhere.

TOO MANY elevators in a community means that some of them will ultimately be eliminated by the operation of natural and economic laws. One way to find out whether too many elevators exist is to build additional houses and wait for the operation of those laws; but a far more sensible way is to study conditions before hand to learn the needs of the community. If competent persons had studied in certain communities the past few years many thousands of dollars would have been saved to those who ventured where failure was the only possible award.

The Need of Greater Efficiency.

In the brighter days of the readjustment of business to new conditions, old means, methods and practices must give way to the new and more efficient, because the grain business must be conducted on narrower and more certain margins, hence greater efficiency must be attained in every department by those who wish to succeed.

Accepting the inconvenient, poorly arranged so-called grain handling plants stuck up by the barn builders and the silo constructors in the place of the modern grain elevators needed is a thing of the past. To succeed the progressive grain dealer must adopt improved mechanical facilities for handling grain. His entire equipment must be suited to the needs of his business and so arranged as to facilitate the handling of the maximum marketing of his station in a minimum of time and with a minimum expenditure of labor and power.

Receiving and elevating facilities of every country elevator should be equal to the maximum requirements of the station without interfering with the shipping facilities of the house, then it will not be necessary for the elevator operator to work nights when he wants to ship a load. Not only do all country shippers need more conveniently arranged houses, but they need faster handling facilities and greater power so they can speed up when little time is left to ship as contracted or impatient farmers tire of waiting to unload and drive to a competing elevator.

The efficiency engineer has not yet gained recognition from either the terminal or the country elevator operator, altho everyone recognizes, both have crying need for his services. During recent years many elevators have been built at stations where there was no need for an additional elevator and most of the new houses are much larger than needed, all of which help to establish a high overhead expense which must be met before any revenue can be set aside for profit.

The experienced elevator operator who knows the needs of the business will avoid the

unnecessary investment in useless facilities, he will study how to secure a maximum storage and handling capacity with a minimum expenditure, so as to insure his being able to handle grain at a profit when his competitors are losing money.

The New Bill of Lading.

The Interstate Commerce Commission has prescribed new forms of domestic and thru export bills of lading, both straight and shippers order. The terms and conditions of the domestic B/L were published in full on pages 776 and 777 of the Journal for Dec. 10.

The new form is of considerable interest to grain shippers and receivers. The addition of the phrase which specifies that carriers shall be liable *as at common law* for loss of or damage to goods while in transit is interesting but not especially important. It merely reaffirms a principle of law and obviates attempts to limit liability to a lower basis than the legal one.

"Discrepancies in elevator weights" is eliminated as one of the grain losses for which carriers are liable, but the term "natural shrinkage" is retained. The carriers seem to have hoodwinked the Commission as well as themselves into believing that natural shrinkage is a fixed quantity that can be determined in advance by rule of thumb methods. There is natural shrinkage in some grain under certain conditions; but not in all grain under all conditions. To declare otherwise is as nonsensical as to say that because electric current flows in one wire it perforce must flow in all wires, irrespective of the fact in an individual case.

Claims, under the new B/L, must be filed within 6 months (9 months on export traffic) as formerly. However, the new form specifically states "Claims for loss, damage, or injury," and the inference will always be that delay claims are exempted from the time limitation thru failure to include them in the wording.

There is a lengthy statement of the rights of the carrier to unload grain when it is not promptly claimed and handled by the consignee; and under certain conditions it may be sold for charges. These provisions will affect grain dealers only infrequently, but the import of them should be understood.

A statement of value, appearing on an original B/L over the shipper's signature, is made of equal force on any exchange B/L issued in lieu of the original. Grain dealers who consign or divert cars should examine the original B/L carefully to know what provision it may contain in this respect.

An important provision of the new B/L is that which enables the shipper to specify that freight charges must be collected from the consignee. On its face, the document contains space in which the shipper can serve this notice on the carrier and when this election is exercised the carrier has no recourse on the shipper if it delivers the goods without collecting all the charges against them. This will make it possible for the grain shipper to avoid claims against him for freight charges long after the shipment has been handled and forgotten. It puts an additional burden on both the carrier and the receiver of grain, and it may be necessary for the trade to take cognizance of the fact to preserve the rights of elevator operators in the country and receivers in terminal markets. This, however, can be

handled easily by the trade and after a little time it will cause no difficulty.

For some reason not apparent to the average person who is a user of rail transportation, the Commission did not order the adoption of the new form. The decision merely states that any other form will be unreasonable, and that if carriers fail to put the new form in force any person aggrieved has the right to file complaint. WHY?

Why evade the issue in this manner? Why spend years in the study of a proposition and then make no definite step to adopt the conclusion when the problem is solved? If the B/L in use is unreasonable—and the Commission says it is—why leave excuse for continuing its use?

Grain dealers should lose no time in studying the new form and if unsatisfactory filing complaint. It is not all that might be desired as a contract for transportation of grain, but, seems better than the old one.

"Improved Marketing Conference."

The Secretary of the Kansas State Board of Agriculture, having become disgusted with the factional strife among the various bands of agitators, each having persisted in the contention that its plan offered the only real relief for the grain producers of the state, has called a conference in the State House, Topeka, January 10th, of "individuals, companies and organizations interested in improving marketing conditions for the special purpose of securing the complete co-operation which is so vitally essential in this tremendous undertaking."

The Secretary, being employed by all the citizens of the state, is expected to work in the interests of the state and all its citizens. The roving bands of agitators who prey upon the producers here, there, everywhere have no interest in Kansas, and no interest in the producers of the Sunflower State beyond what they can get out of them.

The two thousand grain dealers of the state have given their time, thought and energy to providing the most economical machinery for marketing grain that has been evolved anywhere in the world. These men have backed up their specialized ability with their money showing that they believe thoroughly in the efficiency of the established marketing machinery. With so many grain marketing experts right at his door, it seems ridiculous that the Secretary should call in the wildest theorists and lecturers from all over the land to help to solve problems foreign to their knowledge and experience.

It would seem high time that the organized grain dealers give the Secretary some light on the work that they have been carrying on for the past twenty-five years in an effort to improve every detail of grain marketing machinery. The record of their accomplishments, by which producers and consumers have profited fully as much as the handlers, is one to be proud of.

The fakers and the vampires have maligned and abused the established grain elevator operators so much most of them hesitate to raise their voices in their own defense. They have meekly submitted to these vicious attacks of the agitators so long it seems time some organized steps were taken to show up the blue sky artists and defend the only merchants who have effected real improvements in the marketing of grain every year and said nothing about it outside their own line of trade.

Would Change Spring Wheat Grades.

An attempt to bring about a change in the grain standards for spring wheat by congressional action is being made under a bill introduced in the House Dec. 21 by Representative Halvor Steenerson, of Minnesota, and known as H. R. 9668.

The intent of the bill is far reaching. It would eliminate the sub-class Red Spring of Hard Red Spring Wheat. Four numerical grades are provided, instead of five; and most of the grade requirements have been made more liberal, permitting wheat of lower quality to enter the various grades. Rye is set up as a separate grading factor and there would no longer be any consideration of inseparable foreign material.

A moisture content not greater than 14½% will be wholly disregarded if the bill becomes a law. When the wheat contains moisture in excess of 14½% the quantity would be stated on the inspection certificate. All foreign material, other than rye, would be classed as dockage, with a designation on the certificate as to its kind and quantity.

The general terms of the bill provide that the grades it specifies would take effect 30 days after its passage, and that thereafter the standards might not be altered or modified so as to take effect before Aug. 1, 1924.

An explanation of the bill, and some of the reasons which Mr. Steenerson gives for introducing it are contained in the following letter written by him:

Grain Dealers Journal: The bill changes the present regulations, first, as to moisture, and second, as to dockage in that both are to be designated on the grade certificate but shall not affect the grade. Under the present rules, practically all weed seeds are classified as inseparable material and a half per cent of these reduces the grade from No. 1 to No. 2, and 3% to No. 5, although the wheat itself may be of the finest kind and quality. A man who purchases No. 5 wheat on grade now may receive No. 1 or No. 2, or No. 3, with an admixture of one-half to three per cent of weed seeds, or he may receive No. 2, No. 3 or No. 4. A man who buys on grade under the present rules does not know what he is going to get either as to quality of wheat, or as to moisture.

It is admitted that perfect wheat will carry more moisture and still be storable than poor wheat, yet under present rules, a man who has sold No. 5 may deliver light weight wheat, slightly musty, with 16% moisture, which would not be storable. Cases are reported where such wheat had been immediately disposed of although the purchaser was bound to accept delivery.

The purpose and object of standards and grades is to inform the buyer, as well as the seller, what the actual article is. Under the present system the producer who sells at the primary markets has his commodity graded down from No. 1 to No. 5 because of these alleged inseparable materials, and when they arrive at the terminal, the same wheat may be restored to No. 1 either by taking out the foreign material, which can be done at a small expense, or by mixing it with wheat without any foreign material in it, so the foreign material falls below the permissible amount.

The same thing is true of moisture. The wheat may be No. 1 but graded down on account of a fraction of one per cent excessive moisture, can be mixed with drier wheat and both lots will be No. 1.

If the inspection certificate, as provided for in my bill, shows the foreign material or dockage, the kind any quantity, as well as the moisture, the buyer on grade has the necessary information. Yours very truly, H. Steenerson.

Grain dealers and intelligent farmers will not approve this new effort to tamper with the wheat grades, and they will oppose it actively. Even those who do not think the present standards are all that is to be desired will agree that changes should not be brought about by legislative action but rather by careful study and consideration on the part of grain growers, grain handlers and inspection and supervision officials. Legislation in this case

bears a very close resemblance to the playing of politics and it has no place in the determination of specific grade requirements. Politicians can not legislate value into low grade wheat, but they may depress the market price.

A Year is Dying.

All nature's work records a succession of constantly recurring cycles beginning with birth and ending with death. The seed swells in the spring, sends forth a shoot; the plant grows, produces new seed, and dies.

Man himself presents a familiar example of the inexorable working of nature in the administration of her laws, and man's every activity reflects the impress this constancy of change has wrought upon him.

What of this period that is passing? What of the one that is to come?

Man has known an infinite variety of experiences in The Year 1921. He entered it full of hope that it might bring a new and better order of things, but in this he was disappointed when we measure the events by a material standard. His business world was topsy turvy at the beginning of the year and there was little improvement, as month succeeded month. He contended against the inevitable consequences of the steps he had previously taken; and many times his efforts to avoid those consequences served only to make matters worse. He reaped the results of his earlier sowing, but, unwilling to accept the toil of the harvest, he made that toil all the more arduous as he sought to avoid it.

The Year 1922 is at hand for business men. Grain dealers, especially, look to it with hope. All see the folly of artificialities, and as with one accord business men are resolved to profit by the experiences of the past and to chart their course according to the true compass of actuality.

Grain dealers have suffered much in 1921. Added to the difficulties of their own position, they were beset with high freight rates, high taxes, ill-advised, unfriendly and uninformed criticism, and unstable market values that were influenced chiefly by the world's generally unsettled condition. The New Year, on the other hand, gives promise of freedom from much of the irksome hindrance of the past twelvemonth.

There is a better feeling and a fairer one on the part of the public generally toward the grain dealer and his service. None but the self-seeking will now declare that the handler of grain fails to perform a labor worthy of his hire. Freight rates will be reduced, we are assured, and perhaps the present uncertainty about them will have been removed even before the New Year's Day.

Markets will continue to fluctuate, but the forces of readjustment have asserted themselves to the full extent of their ability to produce violent downward movements in prices of grain and it is reasonable to expect that henceforth the changes will be less extensive and less harmful to producer and handler alike.

We stand, then, upon the threshold of a New Year. The past is dead. For us there is the future—a future of earnest work and honest service. For us there is the buoyant consciousness that we are prepared to attack the tasks before us with the determination and the ability to acquit ourselves well in their performance; the knowledge that we serve honestly and faithfully and effectively. For

us there is the assurance that, serving in this manner, the future is secure for the American grain dealer and the American system of open competitive grain marketing.

A New Year is Born!

Vital Dangers in Careless Handling of Fumigants.

In the news columns of the Journal, this number, is reported a fire occurring during fumigation for weevil in an elevator, which should serve as a reminder that all fumigants are dangerous either to life or property, or to both.

Users of bisulfid of carbon must bear in mind that besides its poisonous effect this chemical when mixed with air is highly explosive. All fires or naked lights should be kept away.

Hydrocyanic acid gas is so deadly that loss of life to persons innocently wandering into the vapors that may escape from a building or entering thru a door, supposed to have been barred, can be expected.

Paradichlorobenzene, while not dangerous to life, nor explosive, is not effective at low temperatures.

Chloropicrin has the great advantages of not being explosive and of giving warning to anyone coming within the scope of its influence. This gas is more irritating than deadly. It is so new in its application to grain in bins or cars that those who contemplate using it must consider how to get rid of the gas after it has done its work, without annoying the neighbors. In the country this problem is not so serious, and in the cities nearly all elevators are equipped with suction fans, which could draw off the gas and blow it up thru the roof.

Labor Situation on Railroads.

On Dec. 12 the Railroad Labor Board issued a decision which may ultimately have a great effect on the labor situation on railroads, and which is of interest to all users of transportation because the wages of railroad employees has a material bearing on freight rates. This decision, which for the present applies only to men in the maintenance of way service, provides a new set of working rules, chief among which is one that requires that time and one-half payment for overtime does not start until after the 10th hour of work instead of after the 8th. The saving that will be realized by the carriers because of this change is not known, but in principle it indicates a movement toward a more healthful condition.

On the other hand, representatives of the maintenance of way men, in session in New York, voted on Dec. 11 to reject any wage reduction proposals and to appeal to the Labor Board for advances ranging up to 19%.

J. C. Murray, receiver for the Missouri and North Arkansas, asked the Board to authorize reduction of wages of employees on his line 25% or to let him run on an open shop basis, saying he could reduce expenses one-half.

Bulletins were posted in the shops of the Big Four announcing that conferences with employees looking to a reduction in wages will begin Jan. 16; the Eastern Lines announced proposed reductions ranging from 10% to 30% and affecting about 750,000 train service, shop and maintenance of way men; and the Baltimore & Ohio laid off a great many men and closed shops on the entire system.

Shop unions are protesting bitterly against the right of railroads to contract work to firms or persons not under the jurisdiction of the Labor Board. By this practice, the unions claim, the carriers are evading Labor Board orders as to wages and working conditions, and they charge the contractors, in most instances, have arbitrarily reduced wages below the scale prescribed by the Board.

Asked— Answered

[Readers who fail to find information desired on any subject of interest to grain dealers should send us their query for free publication here. The experience of your brother dealers is worth consulting. Replies to queries are solicited.]

Who Will Pay the Notes?

Grain Dealers Journal: It will be remembered that a few months ago the U. S. Grain Growers, Inc., asked for loans of money from farmers' elevators and other organizations and individuals friendly to it. This money was to be used in getting the U. S. G. G. under way, and the loans were to be paid by the corporation. Fortunately, none of my friends embraced the golden investment opportunity thus offered, so far as I know; but now that the scheme seems to be slowly disintegrating I am wondering who will pay any loans that were obtained. If individuals endorsed the paper they no doubt will be called on to make their endorsement good. Who will repay them?—Bystander.

Mortgagee's Right to Stop Payment?

Grain Dealers Journal: I have just received a letter from an insurance company telling me that if I had bought any grain of certain parties who had given them a mortgage on this grain to secure notes due last October they would expect me to reimburse them.

I did not happen to buy any of this grain, but if I had could they come on to me now and make me pay for the grain, causing me to pay for it twice? They had given me no notice up this time.—J. E. Armstrong, Scotts Bluff, Neb.

Ans.: The Nebraska law requires the filing of chattel mortgages and presumably the insurance company has filed the document. With regard to grain there has been no decision of the Nebraska courts as to lack of notice of mortgage; but the Supreme Court of Minnesota in the case of *Endreson v. Larson*, 112 N. W. Rep. 628, held that:

"A purchaser of grain from the mortgagor, without any knowledge that it was mortgaged, except constructive notice by the record of the mortgage, is not protected as an innocent purchaser by the mere fact that the mortgagee permitted the mortgagor to thresh and sell the grain."

Therefore the buyer of mortgaged grain who has paid the mortgagor can be made to pay for it twice.

Who Pays War Tax After Jan. 1?

Grain Dealers Journal: War tax on freight charges will end Jan. 1. After that date, many settlements will be made on transactions originating prior to the end of the war tax period. Who will pay the tax in these cases?—Freeling Grain Co.

Ans.: The rules of all grain trade organizations provide, in effect, that the party who is liable for the freight charges shall likewise be liable for war tax. This will apply as well after Jan. 1 as before that date.

Grain dealers should bear in mind the fact that shipments on which freight is prepaid before Jan. 1 will be required to yield a tax to the government; while in the case of shipments starting before Jan. 1, with charges collect at destination, and not arriving until after Jan. 1, there will be no tax. It thus resolves itself largely into a matter of the date of payment of freight charges, and each shipment must be considered individually. This provision, however, will have less effect in the grain business than in many other lines of trade because grain usually moves on collect way bills.

In the case of contracts made prior to Jan. 1, but uncompleted on that date, it would seem that the receiver will not be entitled to charge war tax on account sales, even tho that charge was contemplated when the contract was made. He will not be required to pay it to the government and should not charge it to the shipper.

Clerks who handle account sales after Jan. 1 will need to examine each carefully to determine whether the shipment arrived at destination before or after Jan. 1.

Landlord's Lien?

Grain Dealers Journal: If a landlord tells me not to pay the renter any money for grain off of his place will I have to hold all the money for the grain he delivers to me or will I have to hold only enough to pay the rent?

In this case the renter owed the landlord \$270 rent for pasture. He owed the landlord on a note given before he moved on his place. The renter was willing I should keep out the \$270 and pay him the balance.

Could I have done that and not been liable to the landlord or could the landlord collect from me for the whole amount?—W. H. Shoon, mgr., Farmers Co-Operative Co., Gilson, Ill.

Ans.: The Illinois landlord's lien law provides that "every landlord shall have a lien upon the crops grown or growing upon the demised premises for the rent thereof." It does not provide that the landlord shall have a lien for notes or debts arising out of other transactions between the landlord and tenant.

In undertaking to hold the dealer for a note not growing out of the relationship of landlord and tenant this owner shows a disposition to overstep his legal rights and the dealer should be careful not to pay out money until the lien is satisfied. The renter being willing, the dealer should get a release of the lien from the landlord in writing on paying the landlord \$270. Being free of the lien the dealer then can settle with the renter.

If the landlord and renter will not agree to release of lien by such mutual understanding the dealer should hold all the proceeds of sale until made defendant in a suit, when he should pay the money into court and have the third party brought into the case.

Unless the dealer so protects himself the landlord may allege moneys paid him by the tenant were in settlement of old debts and that the landlord's lien for rent remains unsatisfied. There have been a few cases in the Illinois courts where the dealer has paid the proceeds into court when landlord and tenant could not agree.

Some grain buyers force landlord and tenant to settle their differences by making check for grain payable to both, then both must endorse the check before either can get any money.

Carrier's Attempt to Compromise Claims?

Grain Dealers Journal: I have four claims against the railroad company on four different cars of wheat shipped in July and September, 1920, and up to date I have failed to collect on them.

The railroad company offers to pay the claims on two of them provided I will furnish them with a letter of withdrawal of claims on the other two cars, alleging that two of the cars have a clear record. They refuse to pay any of the four claims if I do not withdraw the other two claims.

I have been using my private seals on all cars shipped and the seals were broken on the two cars on which they claim a clear record. I have asked them to consider each claim on its merits and to forward their check for the two claims they are willing to pay, but they refuse to do so.

Is not there some way I can make them pay the two claims without withdrawing the other two and without bringing suit? Is there not some commission I can report them to? How can I bring suit if they have all the papers in these claims? Have I a right to use my own private seals?—John Langer, Eldred, Ill.

Ans.: Shipper has a right to use his own private seals. Shipper can start suit without the papers and require the carrier to produce them in court. Before starting suit the railroad company should be requested to return all papers, as, after suit has been started it may allege the papers have been lost. In view of the fact that papers actually are sometimes lost shippers should adopt the practice of furnishing copies to the claim departments, retaining the originals in their own possession.

The federal and state commissions do not have jurisdiction over loss and damage claims. The federal commission does grant reparation on overcharge claims.

The courts do not recognize the "clear record" allegations of the carriers; but will pass such clear record claims on to the jury the same as all other claims.

From a legal standpoint "clear record"

means only that the grain fell out of the car without the train crew noticing it. It is only a bluff to keep the shipper out of his just dues.

For a railroad company to refuse to pay a shipper's admittedly just claims on two cars simply because they question his rights on two other claims is absolutely dishonest. The only way to make crooks go straight is to put them thru the courts.

Tariffs That Can Be Checked by the Inexperienced.

Grain Dealers Journal: Where could I purchase a railroad freight tariff that is published in such a manner that an inexperienced rate man could check the rate on grain and grain products?—W. W. Grigg, Coffeyville Commission Co., Coffeyville, Kan.

Ans.: If all rates were made on the distance tariff plan it would be possible to publish a tariff that could be understood by anyone. At present, rate-making involves too many factors to be thus simplified, and there is no tariff published for the benefit of the inexperienced. Eight pages of instructions for the student of tariffs in general are published in the "Freight Traffic Red Book" for 1922. The intelligent grain shipper who will read these 8 pages carefully should be able to figure his own rates from the tariffs supplied to him by the railroad company. Sample pages of tariffs are given with detailed explanations of their interpretation. The price of the book is \$6 and it is sold by the Traffic Publishing Co., New York.

Effect of Capper-Tincher Act?

Grain Dealers Journal: Will the Journal advise us what effect the Capper-Tincher Act is going to have on the speculative buying and selling of wheat futures?

Our understanding is that it would stop all dealing in futures unless it was a hedge on grain and that speculative buying and selling would be stopped.—J. W. Morgan.

Ans.: The Future Trading Act empowers the Sec'y of Agriculture to prescribe regulations for trading in futures and until such regulations have been promulgated speculative buying and selling is not affected.

In a negative way the investment by speculators to carry large quantities of grain, to be sold later at advanced prices, is affected, because any investor on a large scale faces a situation where, after he had been buying on a scale down and accumulated a large line the Sec'y of Agriculture could step in and compel him to sell out before the market advanced enough to let him out without loss. Under the new law no one can bull the market as Leiter did, without the connivance of the Sec'y of Agriculture.

A bull on oats, for example, might accumulate several million bushels of the cash oats now in store, but the Sec'y could prevent him from selling corn futures to an equal amount as a hedge against his oats holdings.

While the law is somewhat like a monkey-wrench thrown into the machinery of speculation it does not prevent speculation in cash grain, and large holders of cash grain are in a position to affect the market for futures as formerly by taking off or putting on their hedges.

Need Cutout Switch Near Motors.

The need for a motor cutout switch near the motor itself was demonstrated when fire destroyed the elevator of the Farmers Co-op. Ass'n, Capron, Okla.

The manager started the plant after it had been idle a short time while he went to dinner. It did not operate satisfactorily, and on going to the cupola he found the motor covering on fire. The starting compensator was in the workroom below, so he could not stop the motor without going down, and he was afraid to throw water on the fire because of the danger that the electric current would injure him. He went below, stopped the motor, and then could not return to the cupola because the fire had made too much headway. Result, plant a total loss, altho he could have saved it when first in the cupola if he had been able to shut off the current.

The mutual insurance code requires that when the motor is distant from the starting compensator a switch for stopping the motor be placed near the machine itself.

New Signposts to Prosperity.

By Joseph P. Griffin, President Chicago Board of Trade.

New signposts to prosperity are apparent. Old-fashioned American courage is coming to the surface. This rising tide of faith and confidence is mirrored in many industries. Courage is driving out the fear that has been shackling production, a fear engendered as much by political as by economic events.

General readjustment of price levels is going forward in a more orderly manner, which is a most hopeful sign. This will result in gradual lifting of the burden of price inequalities. It will stimulate buying in the basic industries by both producers and consumers, and likewise further stimulate production and absorb the army of idle men and women.

To quicken the nation's march toward prosperity there should be a reduction in freight rates, and revision of taxation laws in a manner that would encourage rather than discourage investment. Increase in production efficiency and lowering of costs will not alone assure return to normal industrial conditions. Freight rates and tax laws constitute a barrier of paramount importance. Permanent improvement, too, depends in a large measure upon the future purchasing power of foreign nations.

Turning to the grain trade, it may be said

that the last eighteen months have constituted one of the darkest periods in history. From the day price deflation hit agricultural products the grain trade has struggled as never before against the elements that tend to upset the natural operation of the marketing machinery.

These menacing elements have included widespread and usually selfish criticism of the whole grain distributing system; introduction in legislatures and in Congress of a score of proposed laws with the single purpose of wrecking the marketing system and substituting experimental methods; intemperate marketing by farmers at critical periods, and the withholding of grain, on the advice of professional organizers at times when the surplus could, in a measure, have been absorbed at greater profit to the farmer.

In the face of these destructive tactics the exchanges continued operation. In later years when producers view 1921 in the retrospect, they will realize, as many already do, that the grain exchanges performed a remarkable economic service. They made possible a ready market for the grain grower, a market with prices based on world supply and demand, at a time when wool growers and producers of some other commodities were without a market and as a result were plunged into financial disaster.

Fortunately for the producers, as well as

for the whole grain trade, the sweeping provisions of the many regulatory measures were not enacted into law. But the constant battle to prevent such eventualities kept the entire trade in a turmoil throughout the year. It can readily be seen that such unsettled, unnatural conditions in the market must, in a measure at least, operate to the disadvantage of the producer as well as the distributor.

Competent speculation, always recognized by highest authorities as an essential to the economic distribution of grain, has been virtually driven out of the market. The result may be found in a study of conditions during the autumn months. Country bankers were forcing farmers to liquidate and pay their debts. Farmers were becoming panicky. They rushed their grain to market in a frenzied manner.

The movement was extremely large in spite of the fact that we did not have an unusually large crop. The tremendous marketing was in excess of the combined purchasing power of our domestic customers, foreign governments and speculators. Speculation always has been a bolster to prices. But it has been largely killed off and its absence was indeed a serious blow to the producer during the heavy marketing season.

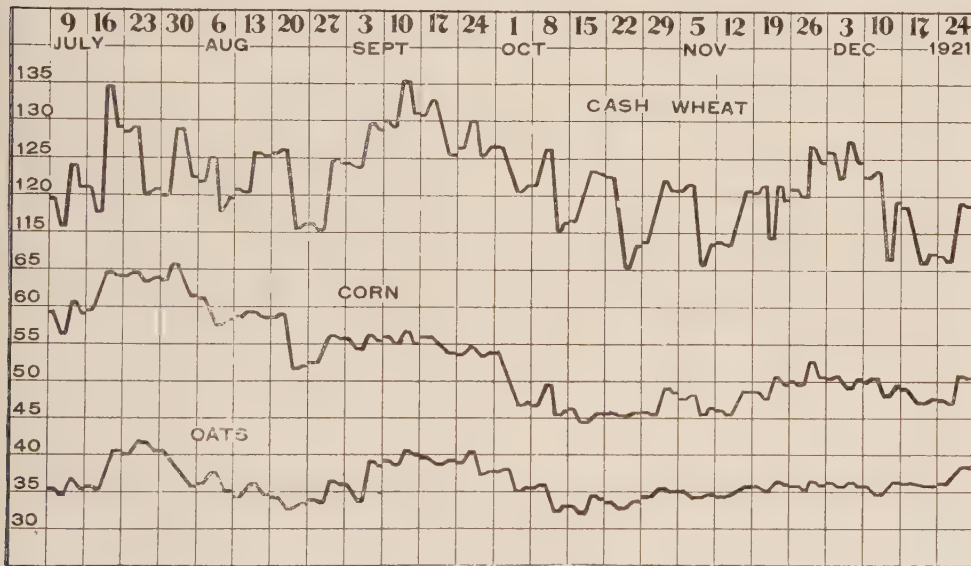
The grain trade has been harassed by law-making bodies. Like many other lines of business it dreads the groups and "blobs" that attempt to drive thru class legislation and write into the statute books laws that discriminate against the many in favor of the few.

The grain trade's greatest hope is that 1922 will see a more sympathetic attitude by law-making bodies toward business generally. With this co-operation the exchanges will strive to maintain the high standard of efficiency which has made possible the distribution of grain at a lower cost than exists in any other staple commodity.

The Capper-Tincher law to regulate exchanges is now in effect. All of its provisions do not now apply to the Chicago Board of Trade because some members desired to test the law. Nevertheless, the officers of the Chicago Board of Trade and of other exchanges have pledged their support to the government in carrying out the provisions of the law so long as it is judiciously administered. What the full effect of that law will be cannot now be determined. The year 1922 will decide.

Cash Wheat, Corn and Oats Fluctuations from July 2 to Dec. 25.

Opening, high, low and closing average prices of No. 2 red winter wheat, No. 2 mixed corn and No. 2 white oats at Chicago each week are given on the chart herewith. The daily average is used in charting; actual prices were made each week a few cents above or below the extremes charted.



Daily Closing Prices.

The daily closing prices of wheat, corn and oats for May delivery at the following markets for the past two weeks have been as follows:

	Dec. 10.	Dec. 12.	Dec. 13.	Dec. 14.	Dec. 15.	Dec. 16.	Dec. 17.	Dec. 19.	Dec. 20.	Dec. 21.	Dec. 22.	Dec. 23.	Dec. 24.
MAY WHEAT.													
Chicago	114 1/4	113 1/4	113 3/4	110 1/4	112 3/4	112 3/4	112 1/4	114 1/4	114	116 1/4	115 3/4	116 3/4	117 1/4
Kansas City	106 1/4	105 3/4	104	103 1/4	104 1/4	105 1/4	104 1/4	107	106 3/4	109	108 1/4	109 1/4	109 1/4
St. Louis	112 3/4	111 3/4	110 1/4	109 1/4	110 3/4	110 3/4	110 3/4	112 1/4	112 3/4	114 1/4	114 1/4	114 1/4	115 3/4
Minneapolis	121 1/4	119 3/4	118 1/4	117 3/4	119 1/4	119 1/4	119 1/4	121 1/4	121	123 3/4	123 3/4	124 1/4	124 1/4
Duluth (durum)	97 1/4	95 1/4	93 3/4	92 3/4	93 3/4	93 3/4	93 3/4	95 1/4	95 3/4	97	97	97 1/4	97 1/4
Winnipeg	109 1/4	108 1/4	106	106 3/4	108 3/4	109 3/4	110 3/4	112 1/4	111 1/4	112 1/4	112 1/4	113 3/4	114
Toledo	127	126	124	122 1/4	124 1/4	125	124 1/4	126 3/4	126	128 1/4	128 1/4	129 1/4	130
Milwaukee	114 1/4	113 3/4	111 3/4	110 3/4	112 3/4	112 3/4	112 3/4	114 3/4	114 3/4	116 1/4	115 3/4	116 1/4	117 3/4
MAY CORN.													
Chicago	54	53 3/4	52 3/4	52 3/4	52 3/4	53	52 3/4	53 1/4	53	54 1/4	54 1/4	55	55 1/4
Kansas City	47 1/4	46 3/4	46 1/4	45 3/4	46 1/4	46	46	46 1/4	46 1/4	47 1/4	47 3/4	48 3/4	48 1/4
St. Louis	52 3/4	52 3/4	51 3/4	51 1/4	51 1/4	51 1/4	51 1/4	51 1/4	51 1/4	53 3/4	53 3/4	54 1/4	54 1/4
Milwaukee	53 3/4	53 3/4	52 3/4	52 3/4	53	52 3/4	52 3/4	53 1/4	53	54 1/4	54 1/4	55	55 3/4
MAY OATS.													
Chicago	38 1/4	37 3/4	37 1/4	37 1/4	37 3/4	38	38 1/4	38 3/4	38	38 3/4	38 1/4	38 3/4	39 1/4
Kansas City	36	36	35 1/4	35 1/4	35 1/4	35 3/4	35 3/4	36 1/4	36 1/4	36 1/4	36 1/4	36 3/4	37
St. Louis	39 3/4	39 3/4	38	38 3/4	38 3/4	38 3/4	39	39	39 1/4	39 1/4	39 1/4	39 3/4	39 3/4
Minneapolis	33 1/4	32 3/4	32 1/4	32 3/4	32 3/4	32 3/4	33	33 1/4	33	33 3/4	33 3/4	33 3/4	34 1/4
Winnipeg	44 3/4	43 3/4	42 3/4	43	43 3/4	44 1/4	44 3/4	45 1/4	44 3/4	45 1/4	45 1/4	45 1/4	45 3/4
Milwaukee	38 3/4	37 3/4	37 3/4	37 1/4	37 3/4	37 3/4	38	38 3/4	38	38 3/4	38 3/4	38 3/4	39 1/4
MAY RYE.													
Chicago	91 1/4	90	88 3/4	87 3/4	88 3/4	88 3/4	89	88 1/4	90	90 1/4	91 1/4	91 1/4	91 1/4
Minneapolis	82 3/4	81 3/4	80 3/4	79 3/4	81 3/4	80 3/4	80 3/4	81 1/4	80 1/4	82 3/4	82 3/4	82 3/4	82 1/4
Duluth	86 1/4	85	83 3/4	82 3/4	84 3/4	84 3/4	83 3/4	84 1/4	84 1/4	85 3/4	86	86 3/4	86 3/4
Winnipeg	92 3/4	91 3/4	89 3/4	89 3/4	89 3/4	90 3/4	90 1/4	90 1/4	90 1/4	90 3/4	92	92 1/4	92 3/4
MAY BARLEY.													
Chicago	56	56	55 3/4	55 3/4	55 3/4	57	57	58	58	58 1/4	58 1/4	58 1/4	59
Minneapolis	48 3/4	48 3/4	48	48	47 3/4	48	48	48	48	48 3/4	48 3/4	48 3/4	49 3/4
Winnipeg	58 1/4	57 3/4	57	57 1/4	57 3/4	58 3/4	58 3/4	58 3/4	58 3/4	58 3/4	58 3/4	59 3/4	59 3/4

Leaking in Transit

Grain dealers can help brother sufferers in the collection of claims for loss by reporting to Grain Dealers Journal, for free publication, car initials, number, place, date and condition of car seen leaking grain in transit.

Recently we have received reports of the following leaking or bad order cars:

Mo. P. 31515 passed thru Penasola, Kan., Nov. 26, eastbound, leaking wheat on left side just above wheels.—T. R. Douglas, mgr. Producers Grain Co.

Mo. P. 19921 passed thru Penasola, Kan., Nov. 26, eastbound, leaking white corn on left side. Leak not bad, but would cause a shortage if going far.—T. R. Douglas, mgr. Producers Grain Co.

C., B. & Q. 108106 was leaking wheat thru siding at Holdrege, Neb., Nov. 19.—Holdrege Equity Exchange.

C., B. & Q. 113472 was leaking wheat at side of car at Holdrege, Neb., Nov. 19. Loose siding.—Holdrege Equity Exchange.

C., B. & Q. 108439 was leaking wheat at drawbar at Holdrege, Neb., Nov. 15.—Holdrege Equity Exchange.

C. & E. I. 1403 was set out at Lochiel, Ind., by south bound local Nov. 12. Leaking yellow shelled corn at corner post. Shortage will be big.—Joe A. Stone, mgr. Lochiel Farmers Elevator Co., Lochiel sta. (Fowler p. o.)

C. B. & Q. 120043 was leaking wheat at door post Nov. 11 at Holdrege, Neb.—Holdrege Equity Exchange.

Letters

[Here is the grain dealers' forum for the discussion of grain trade problems, practices and needed reforms. When you have anything to say of interest to members of the grain trade, send it to the Journal for publication. It may draw out the views of others.]

Georgia is Consuming Home Grown Corn.

Grain Dealers Journal: Unfortunately for us the increased crop of grain grown in this section has practically killed our grain business. We might state, as information, that in January, 1920, our sales were 110,000 bus. of corn. In January of this year we sold less than 1,000 bushels. We have been accustomed in our business experience, extending over a long number of years, to sell corn freely to our jobbing merchants for shipment from the West. We doubt if we have sold more than five or six cars this entire season. The balance of the trade has been supplied by local corn.

Now, if we handled this local corn it would still be a different proposition, but we do not get a chance at it. Country merchants ship it to the jobbers to apply on their accounts, so we can touch very little of it, and it is a business that has practically gone away from the brokers except that now and then we may sell a little to a mill which has to have Western billing in order to secure satisfactory milling in transit rates. Even that, however, is difficult to work for the reason that our local corn is selling at from 15c to 20c per bushel less than the cost of the Western corn.

It is difficult to ship out our surplus corn for the reason that we are not regarded as a shipping section and the freight rates are against us. It may be that after a while these freight rates will be adjusted in such a way as that we can become shippers of corn. At the present time it does not make much difference to us whether corn goes up 10c a bushel or down 20c.—Lamb & Hollingsworth, Augusta, Ga.

Greater Flexibility and Larger Handling Capacity Needed in Elevators.

Grain Dealers Journal: We fully realize the great desirability of having improved methods for the handling grain through elevators and other grain handling plants.

One thing that has fallen under the writer's observation is that elevators as a rule are not elastic enough in respect of their grain handling machinery. They are too cumbersome and entirely unfitted for rapid and economical handling.

A number of plants recently built and put in operation, especially by Farmers Elevator Ass'ns, have had such extravagant features installed, as flat bottomed bins, and houses with fifty thousand bushels capacity have been equipped with but one elevator leg. The extra cost of an additional leg would have been a small item and would have enabled these same houses to elevate wheat received from farmers wagons in the dump and distribute it to the bins while at the same time the other leg could be used to load wheat out of the elevator into cars. This, of course, would have required a larger power equipment but the efficiency of the plant would have fully repaid its additional cost over and over again to say nothing of the convenience and safety to the employees around the plant. The greater rapidity, ease and lower cost of operating a plant having hoppers bottom bins in place of the flat bottomed is of great advantage.

Another thing that has occurred to the writer is that the average grain handling house of today should be equipped with a dust

collecting system that would pull grain dust out of the house and eliminate a large part of the dust explosion hazard that now exists.

Whether this latter feature is practical or not it certainly deserves the attention of the experts. It may be that the dust removed would be a source of shrinkage in the grain but even so the loss of a lot of weight from this cause would be more than offset by the greater safety of the plant and consequent safety to human life, to say nothing of the lessened danger of the plant being wrecked with its heavy property damage. Very truly, The Morrison Brothers Mills. S. M. Bird, Operating Receiver, Jefferson, Okla.

Government Support of Marketing Schemes.

Grain Dealers Journal: In our President's message in his argument favoring farmers' co-operative unions he calls it "startling" that 7,000,000 bales of cotton should sell at the same value as 13,000,000 and 700,000,000 bus. of wheat should sell at the same total value as 1,000,000,000. To one familiar with this actual business there is nothing startling about it. A short crop always produces abnormally high prices, but this is a very lame argument why the people should be taxed to promote and help these agricultural combinations, which would be identical in working principles and results with any other trust. They could fix prices without the correct economic restraint of supply and demand, which is the only true basis of correct values.

I think when our people, the largest proportion of whom are consumers, not producers, of foodstuffs, become more familiar with this new idea of placing the power to regulate prices entirely in the hands of the seller and paying taxes to accomplish this feat they will begin to think "what fools we mortals be" to furnish money to compel ourselves to pay combination trust prices for our own food and to help bar all fair competition by high import duties.

The farmer has always been able, if he desired to hold his grain, to take a storage ticket from the country elevator buyer and obtain a reasonable advance in cash if he desired. Or if he has facilities to store his own grain and desires to protect himself from fluctuations he can sell it for future delivery. Any legislation interfering with boards of trade or their methods is sure to injure the producer as well as the consumer.—Geo. W. Shepard, Milwaukee, Wis.

Another Advocates Cultivating Farmer.

Grain Dealers Journal: Mr. Thurman's letter on page 704 of the Journal for Nov. 25 has interested me greatly because I am convinced that he has the right idea. In fact, I think the major thought of *service*, which is the foundation of his plan, is the only basis upon which the business of handling grain can ever gain and hold the confidence and good will of its patrons.

Handling grain is an honorable business. It is a service that must be performed and the present machinery is as perfect as man knows how to make it. It only remains for grain dealers to see to it that the machinery operates properly, and herein lies the opportunity for elevator owners and operators, line house agents and farmers' elevator managers to improve the functioning of their individual unit of the machine by making it do for its patrons the things it is capable of doing.

It is not enough that a grain dealer shall pay the going market price from day to day. Competition would force him to do that or put him out of business. He must supplement this by coming more closely in contact with the farmers of his territory in order that there may be formed between himself and his patrons a relationship in which mutual interests shall be given a prominent place in the mind of each.

Mr. Thurman's plan to write a letter once a month to his farmer customers is a good one. He knows their needs and thoughts better than any other person and he is in position to supply the information that will be most helpful to them. The one item of weevil infestation that he mentions is an illuminating example of the service the elevator operator can perform. His trade papers keep him informed of progress in this line and he can easily pass on the facts to the farmers. If necessary or desirable, he can even obtain for them the chemicals needed for fumigating.

The grain dealer is prepared to gather for farmers the data they need about seeds, fertilizers and other means looking toward crop improvement. If he will but make use of his opportunities all the efforts of carping critics to disparage the grain dealer will be set at naught.

Let's get behind the movement Mr. Thurman has started and make grain handling the business of service that it actually is. I am going to start it in my own neighborhood without delay.—F. J. McVey.

How to Get a Good Elevator.

Grain Dealers Journal: Much can be done to improve the arrangement and construction of grain elevators as well as to reduce the operating cost. The four main factors in the erection of a grain elevator are, 1st the owner, 2nd the engineer, 3rd the contractor and 4th the manufacturer of elevator machinery. The owner says he wants a good elevator, everything the best. So the engineer (providing he is honest and knows how) will make a sketch, specifying the best for his purpose, and location. When the owner is given a price, he says, "Your price is too high. Another Contractor was here the other day who said he could build me an elevator of the same capacity, and the same amount of machinery for a great deal less money." Only two things are considered by the owner: Capacity and price. Quality of the building material, and machinery, or efficiency in operating are not mentioned.

The writer has had 29 years' experience as the 2nd, 3rd and 4th factors. I learned a great deal about the method and attitude of the engineer and contractor while in the machinery business.

Many contractors in figuring on a job, will try to cut out or substitute something to see how cheap they can build the house and make the owner believe he has a good elevator. I also learned that much of the trouble with the machinery is due to poor installation, divided as follows: About 50% due to poor designing; 40 or 45% to poor installing or workmanship; 5 or 10% to the machinery itself.

If the owner will pay the price for a good elevator and give the contract to an engineer and contractor of experience who is honest and will do what he says and buy the machinery from a firm that will furnish what is specified, there will be better elevators built, with more efficiency, and with less operating and upkeep expense.

The machinery is manufactured to meet all the requirements, and there are engineers and contractors who know how to design and build grain elevators as good as they can be built. But these same contractors can not do so if they are compelled to figure against, and meet the price of the crooked contractor who never puts in the material and workmanship that he specifies.

Some engineers know how to design and build elevators so as to get ventilation through the bins (either earcorn or small grain) which will benefit the grain. Systems can be installed to take out 80 to 90% of the dust, which will eliminate the dust explosions.

It has been said a man only gets what he pays for, but if he deals with a crook or a man who knows not his business, he always pays for something he does not get, therefore if any grain dealer wants the BEST elevator that can be built, for his location and pur-

pose, I would advise him to investigate the contractor's ability, honesty, and previous work. If he will do this, it is almost a sure shot that he will get a good job, and what he pays for.—D. G. Eikenberry, Bloomington, Ill.

U. S. G. G. Blue Sky.

Grain Dealers Journal: The U. S. Grain Growers are signing up a few farmers but not many, in this part of Iowa. We think it is Blue Sky again. We have been fooled before. (Not us, please!).

If it is a good thing, we don't need a written contract—we will be there with the corn. Don't want any monopoly; we want fair play only.—A Doubting Thomas.

Elevator Offices Should Have Better Arrangement.

Grain Dealers Journal: In making the rounds of many grain elevator offices in all sections of the country, I have been impressed with the lack of proper arrangement displayed in those offices. Apparently, most of them were built as after thoughts, without much plan or purpose.

I suppose it is not necessary to say that the type of office so frequently seen, the one-room, "chicken coop" affair, is only a make shift and does not really deserve the name "office." It served its purpose, perhaps, in the days when country grain handling was pure guesswork and not the highly developed business it is today; but now it is only to be accepted out of the compulsion of dire necessity. Certainly no grain dealer will prefer one of this type.

Offices of two rooms are frequently seen, and these are a great improvement over their predecessors. However, their designers seem to be following a stereotyped style in placing the scale beam and the accommodations for customers in one room, making it a public office, while the adjoining room is usually made to become the private office. Perhaps this plan originated when it was first decided to make a two-room office by adding to a one-room building already existing, but this is no reason why the plan should be perpetuated.

The scale beam, with all records, should be in the private office. Perhaps it would be better to state it thus: The private office should be that room which houses the scale beam, and here also should be all records pertaining to the business. The adjoining room, then, will become a public office, and it should have ample facilities for the accommodation of customers. The sound proof partition between the two rooms must have a communicating door, and it should also have a window thru which papers can be passed to the customers in the outside room.

In an office planned like this, the grain dealer will have his records readily accessible. At the same time, those records and the scale beam will not constantly tempt the general public to paw over them. When the dealer desires to visit with his customers and to talk about matters outside the realm of pure business, it will be easy for him to go into the public office and there carry on the visit.

Designers and builders specializing in elevator work should give this subject careful thought and consideration.—Traveler.

THE placing of restrictions on wheat growing in Illinois by the U. S. Dept. of Agriculture was opposed by a delegation of citizens of St. Clair and Madison Counties who called on B. M. Davidson, director of the state Department of Agriculture at Springfield, Dec. 9.

Kansas Farmers Grain Dealers Meet.

The annual convention of the Kansas Farmers Grain Dealers Ass'n will be held at Salina, Feb. 22-24, 1922.

In announcing the dates, Sec'y Lawrence states that Kansas farmers seem to be tiring of visionary schemes organized from the top down, such as the Nonpartisan League and the Wheat Growers Ass'n, demanding an individual membership fee from each member, the organization to be administered by a body of self-designated officials.

Russian Relief Bill Passed.

A bill originating in the House appropriating \$20,000,000 for relief of the starving in Russia has been amended to provide \$500,000 for the relief of disabled war veterans and \$100,000 for the unemployed in the United States and passed by the Senate, Dec. 20.

The bill authorizes the President to spend \$20,000,000 for corn, grain and other foods in the United States, for shipment in American bottoms to Russia.

In view of the prospects that the bill would be agreed to in conference and signed by the President the U. S. Grain Corporation began chartering boats Dec. 23 of the shipping board and contracting for No. 2 mixed corn f. o. b. Atlantic ports for forwarding prior to Dec. 31 and Jan. 10.

The bill was debated two hours in the House, as vigorous objection was made to spending the taxpayers' money for the benefit of citizens of other countries, or to aiding foreigners while so many Americans are unemployed. Enough votes to pass the bill with a margin to spare were obtained from Congressmen who thought to gain favor with their farmer constituents by spending the public money for the farmer's crops and thereby enhancing the prices. As the price-making of wheat and corn is an international adjustment the farmers are doomed to disappointment if they expect any material enhancement of the price at the expense of the American taxpayer.

THE WHEAT crop of 1921 was of excellent quality and there is a sufficient quantity in the hands of farmers and in elevators for seed requirements next spring.—Northwestern Grain Dealers Ass'n, Great Falls, Mont.

THE annual report of Sec'y of War Weeks pronounces the Mississippi Barge Line a success. It also stresses the necessity for joint rates with rail lines and for equitable division of revenues.

A BILL to extend for one year the powers of the War Finance Corporation to make advances for agricultural purposes has been introduced in the senate.

RATES on rice will be reduced 10% for a period of 6 months by the Southern Pacific, without concurrence of other lines.

Coming Conventions.

Jan. 24 and 25 (tentative), Indiana Grain Dealers Ass'n at Indianapolis, Ind.

Jan. 24, 25, 26, Iowa Farmers Grain Dealers Ass'n at Fort Dodge, Ia.

Jan. 26, Wholesale Grass Seed Dealers Ass'n at Toledo, O.

Feb. 14, 15, 16, Illinois Farmers Grain Dealers Ass'n at La Salle, Ill.

Feb. 22, 23, 24, Farmers Co-operative Grain Dealers Ass'n of Kansas at Salina, Kan.

The Latest in Freight Rates.

The freight rate situation continues in that category "which passeth all understanding." The carriers asked for a rehearing of the Western Rate Case, under which the Interstate Commerce Commission has ordered reductions of approximately 16½% in the rates on grain and grain products, but the Commission refused to grant this and sustained its former order. In asking for the rehearing the carriers offered to make a reduction of 10% in all the United States except New England, applying on practically all farm products. The Commission refused to permit this substitution and announced that its order previously made to become effective Dec. 27 would stand.

On Dec. 23, the Commission changed the effective date of its order in the Western Rate Case, requiring the reductions to be made effective by Jan. 7. The matter is in this stage at the present time, and unless another change is made the railroads will be required to reduce by Jan. 7 the rates in Western, Mountain and Pacific territories in such manner as to remove one-half of the advance of Aug. 26, 1920, as it applies to wheat. Corn rates will be 10% less than the wheat rates. The reason given for the change from Dec. 27 to Jan. 7 was that the carriers could not prepare their tariffs by the earlier date.

The carriers have also announced that, voluntarily, they will make a 10% reduction in the rates on cotton, butter, poultry and other commodities, effective Jan. 1.

On Dec. 14 the Interstate Commerce Commission began its series of hearings on the general subject of rates, both freight and passenger. Shortly thereafter, adjournment was taken to Jan. 9, and later this date was changed to Jan. 11, at which time the general hearing will be resumed. In this investigation, all rates are to be considered. Grain, flour and agricultural products will be taken up on Feb. 9, according to the schedule that has been announced. Direct testimony of carriers will be given Jan. 11 to 14 and the carriers' witnesses will be cross examined Jan. 16 to 18. The testimony of the public and shippers as to general aspects of the case will be heard Jan. 30 to Feb. 4.

Shippers who propose to attend the hearing for the purpose of participating actively are expected to notify the Commission of the time desired and the character of the testimony to be given. For the purpose of handling matters connected with the hearing on behalf of the shippers the following steering com'tee has been appointed: Messrs. Elmquist, Thorne, Fulbright, Cotterell and J. H. Beek. Mr. Beek is executive sec'y of the National Industrial Traffic League.

THE BUNCH of keys which I lost recently, and which was recovered thru identification furnished by the Journal key tag attached arrived safely. You gave me this tag many years ago and I have always carried it since. It served no particularly good purpose until the need arose for that service and then it was on the job. I thank you, as well as the one who found the keys and forwarded them to you.—Geo. F. Munson, chief grain inspector, Cincinnati Grain & Hay Exchange, Cincinnati, O.

Pittsford Says.

Begin the New Year by thinking straight. Your thoughts are alive. They breed what you yourself create by your daily thinking.

* * *

Make your aim a square deal. Then look the world in the face and you won't have much trouble getting a square deal back from the world.

* * *

Be optimistic! There is good dough in the doughnut and none in the hole.

* * *

The surest way to sidetrack the worst is to look for the best.

* * *

Build up your self-confidence—your faith in yourself. Other people think no more of you than you think of yourself—sometimes less.



Crop Reports

Reports on the acreage, condition and yield of grain and field seeds, as well as on the movement to country markets, are always welcome.

CANADA.

Winnipeg, Man., Dec. 16.—The estimate on grain production in the provinces of Manitoba, Saskatchewan and Alberta for 1921 is as follows: Wheat, 251,655,000 bus.; oats, 314,409,000 bus.; barley, 42,330,000 bus.; and rye, 8,680,000 bus.—M. Snow, sec'y Northwest Grain Dealers Ass'n.

The Dominion Bureau of Statistics has adjusted its figures for wheat acreage of the crop of 1921 to conform with the preliminary figures of the number of farms indicated by the last census. It now shows 22,181,329 acres sown to wheat, compared with 17,428,000 acres shown in the previous estimate. The total yield is estimated at 308,925,000 bus.—Sanford Evans Statistical Service.

GEORGIA.

Augusta, Ga., Dec. 9.—A large crop of corn and oats was produced in this section and our grain business for shipment from the west is practically nothing for that reason.—Lamb & Hollingsworth.

ILLINOIS.

Villa Grove, Ill., Dec. 17.—Corn of poor quality and about 15 bus. less per acre than last year. Farmers are going to cut corn acreage 25% to 30% next year. Many are quitting altogether.—G. L. Barrick, mgr. Villa Grove Farmers Elvtr. Co.

Springfield, Ill., Dec. 21.—Considerable rain fell during the latter part of the last week, and snowfall in the northern and central counties varied from 1 to 4 in. Fields are muddy and corn husking has stopped for the present.—Clarence J. Root, Meteorologist.

Springfield, Ill., Dec. 15.—Winter wheat is generally in fine condition tho the growth in some southern areas of the states is not heavy, due to lack of sufficient moisture earlier in the season. The stand is good and the color excellent. The acreage appears to have been somewhat increased over that of last year. Rye condition is excellent, but the acreage is probably smaller than had been expected.—S. D. Fessenden, agricultural statistician.

KANSAS.

La Cygne, Kan., Dec. 10.—Wheat acreage 70% of normal. Looks safe to go into winter.—W. J. Dyer.

Lehigh p. o., Kan., Dec. 22.—Wheat in this locality is of about our average stand, with an average acreage. Moisture is needed.—Friesen Grain Co.

Topeka, Kan., Dec. 15.—The final estimate of the 1921 production of cereal crops in Kansas is as follows: Wheat, 128,220,148 bus.; corn, 96,484,070 bus.; oats, 40,041,310 bus.; rye, 1,240,102 bus.; barley, 14,362,406 bus. The production in 1920 was as follows: Wheat, 140,842,516 bus.; corn, 132,786,310 bus.; oats, 68,693,304 bus.; rye, 1,732,931 bus.; barley, 20,830,072 bus.—J. C. Mohler, sec'y state Board of Agriculture.

MISSOURI.

Ewing, Mo., Dec. 17.—The wheat crop does not look good in this locality.—Farmers Elvtr. & Exchange, R. L. Phillips, mgr.

MONTANA.

Great Falls, Mont., Dec. 20.—There is a marked increase in the acreage of winter wheat over that of 1920. The average condition of the crop is 85%. Within the past month there was a good fall of snow, much of which melted; while now a good blanket of snow lies over a large part of the wheat territory. A large acreage has been prepared for spring wheat and the liberal amount of moisture now in the soil will be a strong incentive for planting.—Northwestern Grain Dealers Ass'n.

NEBRASKA.

Liberty, Neb.—Winter wheat is in want of moisture. The prospect is not good for a good wheat crop in 1922.—Liberty Grain Co., C. W. Hagerman, mgr.

NEW MEXICO.

Clovis, N. M., Dec. 20.—The weather is very dry here and some wheat perishing for lack of moisture. Some of earliest planted is holding up pretty well, but a great per cent has never come up.—Cramer Mill & Elvtr. Co.

TEXAS.

Olney, Tex., Dec. 16.—No wheat up here. Dry. Looks like we won't harvest the seed planted.—O. T. Anderson.

Wichita Falls, Tex., Dec. 12.—The condition of the new crop continues very poor. We have had practically no moisture in this section for 60 days. I do not believe we will have over 30% of a normal crop.—J. C. Mytinger Grain Co.

Want Corn Acreage Reduced.

A resolution was adopted by the executive com'te of the Illinois Agricultural Ass'n at Chicago Dec. 20 advising that the corn acreage in Illinois be "reasonably reduced." Proportional increase in the acreage of alfalfa, clover, soy beans and other legumes to improve soil conditions was requested as a substitute for the abandoned corn acreage.

Pres. Leonard of the Ass'n was quoted by a newspaper as having said that until the national co-operative plans of farmers are able to devise a means of assuring a market and a fair price for the surplus there is no use in producing more corn than is needed, and that the present marketing system has shown itself incapable in this regard.

Foreign Crop Prospects.

Harvesting of cereal crops is now beginning in the Southern Hemisphere. In Argentina, according to a recent report of the Bureau of Markets and Crop Estimates, growing conditions have continued very favorable during October and November and have in large measure offset the lateness of the planting season and the poor start caused by drouth. In Australia, prospects for the wheat crop are very good and almost equal to that of last year. The preliminary official estimate is 146,614,000 bus.

In other countries, the report gives conditions as follows:

South Africa, equally favorable with those of Australia, the preliminary estimate of production being 8,394,000 bus.

In New Zealand the area sown to wheat is greatly increased over last year and unofficial estimates place the probable production as high as 10,000,000 bus., compared with 6,674,000 bus. last year.

In British India the rainfall has been satisfactory. The area sown to wheat is larger than last year and the condition of the crop is promising.

European fall sown crops are entering the winter in fair condition, altho the dry autumn has probably curtailed the acreage somewhat. Recent snow has relieved the drouth in France. Recent rains have been of great benefit in North Africa and greatly stimulated seeding.

Effect of Snow on Winter Wheat.

The general opinion is that winter crops should be well covered with snow during cold weather and more especially when freezing and thawing conditions prevail, but this idea is contradicted by a report of observations made in Ohio and Illinois by Warren J. Smith and C. J. Root, abstracted in a recent Review of the International Institute of Agriculture, Rome.

The investigators worked out a series of coefficients and formulas for correlating the factors of temperature, snowfall and yield, realizing that a study of the effect of a covering of snow on wheat must be entirely separate from the study of the effect of snowfall itself. It was also evident that the matter should be dealt with by districts, taking into consideration the numerous prevailing local conditions.

A correlation was worked out between the number of days with snow on the ground between December and March, inclusive; between the yield and the number of days in March with freezing weather while the ground was bare; and between the yield and the number of days during the winter with the ground bare and the temperature below 20 degrees F. In every case the results showed the relation between the yield and the duration of the snow covering to be only slight or extremely limited. There was some evidence to indicate that it is more advantageous to

wheat if it is not covered by snow during January.

In Illinois, cold winters with heavy snowfall are followed by light yields and the winters with little snow are followed by good yields, according to the author, who admits that this may be due partly to the fact that the temperature is less severe in winter with light snowfall.

War Secretary Condemns "Bloc" Rule.

John W. Weeks, secretary of war, in an address before the annual convention of the Ass'n of Life Insurance Presidents at New York recently severely criticized legislative programs of congressional "blocs," agricultural or otherwise.

After explaining some of the changes that have taken place in the methods of legislating, he said that an examination of the increase in governmental expenditures in recent years for the ordinary requirements of government will indicate the extent that this change has affected the treasury.

Mr. Weeks described the change as having had a tendency to weaken effective government, and as having resulted in irresponsible legislation. He predicted that in time it will divide the legislative branch of the government into groups, each championing a special cause, and that one group will then be seen combining with another to bring about control of legislative action in the interest of a particular faction.

ITALY has suspended until further notice the import duties on oats and rye. The suspension may be canceled any time, but may not extend beyond March 31, 1922.

THE TAX simplification board, authorized by the tax law recently enacted, has been appointed by President Harding and Sec'y of the Treasury Mellon. The board consists of James H. Beal, Pittsburgh; Joseph E. Sterrett, New York; William T. Abbott, Chicago; Charles P. Smith, ass't commissioner of internal revenue; Jesse D. Burke, and George W. Skilton, both of whom are Treasury Dept. men.

THE PLAN of merchants of Madelia, Minn., to accept corn from farmers between Nov. 26 and Dec. 13 at 10c above the market price, in settlement of accounts or in payment of purchases, is meeting the approval of farmers in the territory served by that town. Market price day of delivery is to govern, but at no time is shelled corn to be taken at less than 40c and ear corn 35c. Each farmer is limited to the sale of 100 bus. in this manner, unless special circumstances warrant suspension of the rule.

Exports of Grain Weekly.

[From Atlantic and Gulf Ports, in Bus., 000 Omitted.]

	Wheat.		Corn.		Oats.	
	1921.	1920.	1921.	1920.	1921.	1920.
July 2...	5,586	6,851	1,848	56	1,084	26
July 9...	5,981	5,771	2,817	36	1,154	800
July 16...	5,807	8,556	3,016	89	1,159	322
July 23...	5,359	8,990	3,132	157	908	1,006
July 30...	7,015	7,033	3,192	43	1,895	867
Aug. 6...	10,355	6,375	2,897	52	2,068	353
Aug. 13...	7,777	7,220	1,787	102	511	9
Aug. 20...	9,682	6,919	2,254	63	800	46
Aug. 27...	12,628	11,253	2,839	122	499	166
Sept. 3...	8,690	6,425	1,469	9	184	52
Sept. 10...	10,609	8,203	2,223	55	338	130
Sept. 17...	8,200	10,902	3,981	67	390	50
Sept. 24...	7,515	10,572	3,341	76	125	119
Oct. 1...	8,186	7,476	3,025	75	255	112
Oct. 8...	7,395	7,427	2,302	297	168	186
Oct. 15...	6,210	9,345	2,925	323	99	226
Oct. 22...	7,782	7,985	1,999	401	67	368
Oct. 29...	7,849	8,189	1,136	212	80	275
Nov. 5...	4,944	7,768	1,790	463	217	238
Nov. 12...	6,291	6,072	1,513	474	228	475
Nov. 19...	5,907	8,113	2,145	1,061	439	466
Nov. 26...	4,153	7,988	1,624	170	612	185
Dec. 3...	7,420	8,009	2,108	466	565	180
Dec. 10...	5,748	7,256	1,172	209	270	21
Dec. 17...	6,018	7,924	2,424	231	608	85
Total since						
July 1...	170,534	182,625	55,627	4,672	13,646	6,398

Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

CALIFORNIA.

San Francisco, Cal., Dec. 14.—On Dec. 1 there remained in the state of California the following quantities of the various crops: Wheat, 1,498,020 cents; barley, 5,059,340 cents; oats, 270,900 cents; corn, 275,140 cents; rye, 48,560 cents.—Henry C. Bunker, chief grain inspectors, San Francisco Chamber of Commerce.

CANADA.

Winnipeg, Man., Dec. 16.—Wheat remaining in farmers' hands Dec. 14 in the provinces of Manitoba, Saskatchewan and Alberta was 31,000,000 bus. Farmers also held 25,500,000 bus. of oats, 7,500,000 bus. of barley and 1,500,000 bus. of rye.—M. Snow, sec'y Northwest Grain Dealers Ass'n.

Over 5,000,000 bus. less wheat was marketed at Canadian Pacific Railways points in November than in the same month last year, while on the Canadian National Railway there was an increase of about 2,500,000 bus. Cars loaded in September, October and November on the C. P. R. totaled 54,199, compared with 54,378 last year; while on the C. N. R. the number was 49,783, compared with 22,269 last year.—Sanford Evans Statistical Service.

ILLINOIS.

Villa Grove, Ill., Dec. 17.—Not much corn moving. Farmers not satisfied with prices.—G. L. Barrick, mgr. Villa Grove Farmers Elvtr. Co.

Springfield, Ill., Dec. 14.—The harvest of corn is practically completed tho some little is still in the fields. Only very little of the new crop has been moving to market.—S. D. Fessenden, agricultural statistician.

KANSAS.

La Cygne, Kan., Dec. 10.—About 10% of 1921 wheat on farms and corn coming to market very slowly.—W. J. Dyer.

Topeka, Kan., Dec. 16.—On Nov. 19 farmers of Kansas held 27,339,000 bus., or 21.3% of the 1921 wheat crop. Last year on the same date they held 77,467,000 bus., or 55%. Seldom, if ever, has wheat been marketed so promptly as was the case with this year's crop, and the bulk of that now held probably would have been sold had it not been for the break in the market. The wheat remaining in farmers' hands is being held in hopes of better prices.—J. C. Mohler, sec'y State Board of Agriculture.

MICHIGAN.

Scotts, Kalamazoo County, Mich., Dec. 10.—Only a fair amount of grain moving from the farmers. Feed demand good.—White Bros.

MINNESOTA.

Olivia, Minn., Dec. 10.—Not much grain moving from the farms.—C. G. Floyhart.

NEBRASKA.

Liberty, Neb., Dec. 19.—Corn all in the crib, waiting for 40 to 50 cents.—C. W. Hagerman, mgr. Liberty Grain Co.

OHIO.

Jackson Center, O., Dec. 16.—Grain is moving slow at this time.—A. L. Briggs.

OKLAHOMA.

Vinita, Okla., Dec. 14.—The grain movement is slow. Farmers are holding their grain for higher prices.—E. F. Oelke, R. H. Drennan Grain Co.

TEXAS.

Galveston, Tex., Dec. 19.—Today there are about 300 cars on track here and no one knows whom they belong to, and there is a large quantity of wheat in the elevators which was unloading on account of it beginning to go out of condition, and the elevators do not know to whom it belongs. We have several hundred cars to be unloaded, awaiting room, and from figures given me as to what is known of loadings this month, we have about three-quarters of a million bus. to go out; there may be more, as it is impossible to find out the exact quantity. Often a full cargo boat shows up that nobody had any notice of. If the three-quarters of a million bus. go out this will lighten the situation quite a little. We do not think the congestion was caused by any of the exporters, as they sold the wheat as they bought it, but every Tom, Dick and Harry in the country consigned wheat here before selling, thinking, we presume, that the market was due for an advance, instead of which it went very much the other way. At the same time the foreign buyers practically withdrew from the market, so when these shippers tried to sell there was no market to sell on. The Galveston Wharf Co. is adding about 1½ million bushels capacity to their elevator for next season.—E. F. Newing, Chairman Grain Com'te Galveston Cotton Exchange and Board of Trade.

A BILL has been introduced in the senate to extend for one year the War Finance Corporation to make loans to farmers and dealers in agricultural products.

THE TAX Simplification Board requests suggestions from taxpayers with regard to the regulations and the forms in the administration of the new tax law. Especially is it desired that groups of men representing an industry join in communicating with the Board at the Treasury Department, Washington.

A COM'ITE of the Millers National Federation has recently adopted the following recommendation to Congress: "Resolved, That we favor a specific duty on both wheat and flour, and that the specific duty on a barrel of 196 pounds of flour shall be four and one-half times the specific duty on one bushel of wheat plus fifty cents."



Keep the Premises Clean.

Dirt and dust are taken into the elevator with every wagon-load of farmer's grain, and one of the first steps of the buyer is to remove the dirt and screenings before shipment, in order to get a better grade and to avoid paying freight on the trash.

Having separated the dirt out of the grain going to market some dealers stop their good work right there, judging from the accumulations of dust, chaff and piles of cobs that encumber their premises. The engraving herewith shows a pile of cobs between the engine room and coal house of an Indiana elevator. These cobs constitute an ever present and dangerous fire hazard. If these cobs were given away, otherwise removed or burned up the plant would present a more attractive appearance to the visiting insurance inspector.

In the engraving, to the right, a dust spout is blowing dust between mill and an old coal shed at a plant in Kansas. The discarded old trunk, empty boxes and iron indicate that the operator has chosen to use this part of his property as a receptacle for old junk as well as for dust, oblivious to the fact that the locomotive engine passes right by and that sooner or later a spark from the engine will find an inviting lodgement in the inflammable dust.

Dust, dirt and even screenings may have had but small market value during the past year, but feeds are now looking up and even if he gets little or nothing out of it directly it will pay the country elevator operator to clean up his premises. One good way of working off the refuse is to put in a feed mill and grind up the dust and dirt with low grade grain. Good practice requires that instead of scattering dust over the premises a dust house be provided. Then the dust can be bagged for shipment, ground up or burned.

A BILL introduced in the Senate Dec. 20 will make it possible for the War Finance Corporation to engage in the grain export business, by the making of loans and the purchase of securities.



Cob Pile between Engine Room and Coal House of an Indiana Elevator. Dust Spout Blowing Dust between Mill and Old Coal Shed.

Broadcasting Market Information by Radiotelephone

By Clyde E. Wiley

During the war, the writer directed a number of radio stations that were used either as radiotelephone or radiotelegraph transmitters, and which were used in connection with centrally located control stations, to broadcast information to the various units in an Army Corps.

At that time it seemed that the radiotelephone could be used commercially for the purpose of placing information of different kinds in the hands of those interested; but it remained in a nebulous stage until after the writer was demobilized and entered the employ of Mr. James L. Bush, in the Brokerage business at Tuscola, Ill. After learning something of the methods of keeping the country grain dealers posted on market changes, it became evident that here was a virgin field for the radiotelephone, and one that offered unlimited possibilities for use.

It was possible to purchase at that time, a transmitter suitable for ranges of around fifty miles, and one was accordingly installed.

Almost immediately we found ourselves in trouble; for it was next to impossible to find a receiver that could be manipulated satisfactorily by people who are absolutely unfamiliar with either theoretical or practical radiotelephony. Several nationally advertised receivers were tried out with varying successes until early this year the Westinghouse Electric & Manufacturing Co. came on the market with a receiver that combined simplicity with efficiency in a way that met with our ideas as to what constituted the class of service we desired to render.

Much of our success was made possible by the enthusiastic co-operation of Morris & Stone at Coles, and of Seaman & Morris Grain Co. at Doran, Ill., who installed our first receivers. Previous to the time they installed their receivers we had been broadcasting only the closing markets; but started at this time to putting out the opening, a market every thirty minutes thereafter, and the close.

We have continued this practice to date, and much interest has been aroused in the territory which resulted in our installing sets at several other elevators and mills in this section, notably among whom, are: The Big Four Elevator Co., Mattoon; The J. S. Ashbrook Grain Co., Mattoon, Ill.; and the Farmers Grain Co. at Metcalf, Ill. Several up-to-date farmers have also installed our service.

The country elevator has advantages that are not so easily obtained in the cities, that is, a mast already built for erecting the aerial system. One, two or three wires strung from the tops of their elevators to their offices are all that could be asked for.

The broadcasting is done by the Tuscola Radio Supply Station who sells and installs the receivers and whom Mr. Bush furnishes with the market condition each thirty minutes during the session, also any news items that might be of interest to the trade. The Tuscola Radio Supply Station is in general charge of the writer, who understands the installation and care of the sets, and who is a close enough student of the grain trade to know the needs of this class of business.

Systems such as are outlined above, can be installed at their country offices by commission firms at a reasonable cost, and will most certainly show their worth in reduced telephone bills, and a reduction in the time employees are required to spend in giving markets to customers; for the reason that one man can give market conditions to fifty customers as easily as to one.

The initial outlay required for installation

of radiotelephone receiving equipment ranges from \$75 complete for sets to be used for reception of signals at ranges of 10 to 15 miles to \$216 for sets capable of receiving signals from stations 1,000 miles or more distant. The small sets for use at ranges of 10 to 15 miles have a low upkeep cost, the only renewal required being one dry cell a month or less according to use. The larger sets which we are using the most of require a storage battery for operation, and these batteries must be charged once a week on an average. These larger sets, allow the user to receive concerts and broadcasted information from Pittsburgh, Pa., Newark, N. J., New York City and Roselle Park, N. J. Other transmitting stations are broadcasting music and other interesting programs nightly, and much pleasure can be got from listening to them.

Naturally the radiotelephone is not developed to that stage of everyday operation that is enjoyed by the wire telephone, but it will give satisfactory service 95% of the time, which is sufficient for our purpose.

The cumbersome and uncomfortable head harness worn by radio operators of some years ago have almost entirely disappeared, and it is possible to allow a whole roomful of people to hear what is going on by the addition of a loud speaking device. This device can be purchased at an additional cost of \$45, but can only be used with the larger sets that have amplification powerful enough to operate the device. Practically all our stations are equipped with these devices and the community building of the small town in the future will more than likely be the grain office.

Interruption to the service is usually occasioned by what is known as static. This is electricity of a similar nature to lightning, but in most minute quantities which discharge locally between the antenna, or aerial system, and the ground. Happily, these conditions prevail only during stormy weather. Even at these times we have not as yet had to suspend operation.

Mr. Bush, in furnishing the conditions to us, has in mind only the reduction of telephone tolls, labor and so forth. He has no means of knowing when a person receives the market through us and gives his grain business to another firm. Our service is like newspaper service in that respect. Naturally, however, he expects that most of the people receiving markets through us will at least give him the benefit of some of their trade, and regards the system as an up-to-date advertising feature.

The Tuscola Radio Supply Station will be glad at any time to take up the matter of installing similar systems at other points.

Wireless Market Phone the Greatest Advance.

Morris & Stone of Mattoon, Ill., who have the wireless telephone in service at their elevator at Coles, Ill., write that:

Seaman & Morris at Dorans, Ill., installed the first radio telephone that was ever used in a grain office successfully; and Morris & Stone at Coles installed the second one.

We are proud to be the first because it is the greatest advance for market information that has ever come to the country elevator. We get the market at stated intervals, very distinctly, never missing a word. In stormy or bad weather it seems louder. Sleet and winter storms can not affect it.

We obtained our outfit from the Tuscola Radio Supply Co. at a cost of \$200 for each station.

Markets Obtainable Over Wireless Telephone.

By GEORGE H. JASPERT.

Imagine twenty thousand grain elevators and probably twelve thousand mills daily buying grain; buying from a market which fluctuates hourly. The grain which is bought and sold involves financial transactions totaling millions of dollars yearly.

To buy grain and sell grain at market prices, in fact, to carry on such transactions at present, a network and machinery employing thousands of people is necessary to keep buyers and sellers informed of the hourly quotations. Thousands of dollars are spent to maintain telephones, telegraph, and other means of communication, to make this buying as nearly as possible on an economical basis. This system undoubtedly has made possible accurate decisions in large grain transactions and is proving useful and essential in the regular exchange of grain at the elevators, the mills, and the exchanges.

But today, we are introduced to a new and much more rapid means of obtaining this information. Already we find some mills and some elevators making use of this means; that is, they are employing *radio* or *wireless* equipment for receiving this information from the grain centers.

Grain Reports by Radio.—The U. S. Government has arranged thru its Bureau of Markets, to disseminate market reports, including grain reports from various broadcasting stations thruout the country. Their report includes information on prices and important facts affecting prices. At present, these reports are sent out on a regular time schedule four periods a day. The government has also made arrangements with the Westinghouse Electric & Manufacturing Co. to broadcast from their powerful transmitting stations, located at Chicago, Ill., Pittsburgh, Pa., Springfield, Mass., and Newark, N. J. The three eastern stations are running on a schedule of transmitting this information twice daily, while the Chicago Station, almost directly in the heart of the grain district, transmits their report four times daily.

In addition, the government has arranged to broadcast this same information, on a similar schedule, with Colleges and other organizations possessing powerful transmitting stations. Also, negotiations are now on with the Westinghouse Company to furnish this service from other stations that are contemplated for Western cities in the near future.

Radio Receiving.—To receive this grain market service, it is but necessary to install a small receiving outfit in an office or a convenient location.

The equipment for receiving consists chiefly of a receiving antenna, a regenerative single circuit tuner, an audion detector, and two stages of amplification. Such equipment, when properly installed, can receive reports and other telephony and telegraphy communications. However, care should be taken that short wave receiving equipment is obtained, as all marketgrams are broadcasted on not more than 375 meters.

With a regenerative tuner and a vacuum tube detector and amplifier, located on a table or desk, in a convenient manner, so that messages can readily be copied, messages can be received at distances as high as 800 to 900 miles during winter months, and from 300 to 500 miles during the summer months. However, this is night-time transmission and in considering the installation of a receiving set for marketgrams received during the day, this distance should not be greater than one-half. A six volt battery is employed to furnish the filament voltage and two 22½-volt batteries are used to furnish plate voltage in the detection and amplification of messages. It is important that batteries be connected with the proper polarities and correct voltages. This equipment complete can be obtained for prices ranging from \$175 to \$250.

In the selection of a location for antenna, it should be kept in mind that the antenna should be free from trees, buildings, towers, etc. Objects near the antenna or in close proximity to the wire, absorb the energy and should be guarded against. Whenever possible, the antenna wire should not come closer than 10 feet to any object. Wires may be supported from buildings, poles, or trees. However, when trees are used, the wires should be sufficiently long to permit clearance from all branches by at least 10 feet.

A good ground is as vital to the operation as a good antenna. For installation in cities, a water pipe leaves little to be desired. Hot water and steam heating systems are nearly always available.

In isolated locations, where city water supplies are not available, it is necessary to bury a sheet of copper at least 12 to 14 square feet, in moist earth. When the ground is dry and rocky, it is sometimes necessary to install counter-poise. This is simply a 2 or 4-wire antenna, 5 or 6 feet above the ground and 30 to 40 feet below the antenna proper.

Nation-wide Service.—The government radio broadcasting stations send out time signals at certain periods, making possible the checking of exact time. The Westinghouse Stations daily send out news items, storm warnings, weather reports, and other items of general interest, at designated time periods. Further, the Westinghouse Electric & Manufacturing Co. has announced a nation-wide service of radio broadcasting. On account of the great success and wide-spread interest that has been shown and demonstrated by the pioneer work of this Company, they have completed plans for Stations so located as to cover the entire United States. This service to the home, to the office, and to public assembly places, will allow everyone, anywhere in the country, to enjoy the benefits of it. Also, it will permit all receiving stations to receive the well planned and diversified musical programs that are transmitted nightly.



Receiving Outfit of Wireless Telephone.

The idea of broadcasting stations originated with the Westinghouse Company, by the transmission of the Presidential election returns in November, 1920. It has progressed thru the broadcasting of phonograph music, church services, speeches of prominent men, talks from theaters, musical recitals, results of baseball, football, basket-ball games, complete minstrel shows, as well as government reports, New York stock reports, and national and international news. Today, every performance of the Opera from the Chicago Opera Ass'n is broadcasted from the new Station in Chicago. It is predicted that as a result of this diversified entertainment and information which is being broadcasted, that this service will prove of immense value and interest to all. Radio will, undoubtedly, supplant the phonograph of today and will prove of as much interest to the public as the present day moving picture show.

Receiving Market Quotations by Wireless Telephone.

Grain Dealers Journal: We have installed a wireless telephone in our office for receiving market quotations. As you probably have not previously had any information regarding this service, we will give it to you in detail.

J. L. Bush, located at Tuscola, Ill., a member of the Chicago Board of Trade and a correspondent of Lamson Bros. & Co., has a private wire service from the Chicago Board of Trade. Clyde Wiley, one of his telegraph operators, was in the radio service during the world war and is so interested in the work that he has prevailed upon Mr. Bush to install both a receiving and sending apparatus. The sending station covers a radius of about 75 miles and anyone who installs a receiving set within this radius can receive anything that is sent out from Tuscola; also, from any other point if the sending station is sufficiently strong to reach the receiver.

At present about six receiving stations are located in country elevators and banks that were installed for the purpose of receiving market quotations, including grain, stocks, livestock and liberty bonds, which Mr. Bush puts out every thirty minutes, beginning at 9:30 A. M.

There is no way for the sender to signal the receiver, but the market is sent exactly on the even hour and half hour.

We have had this service in use for about six weeks and find it very satisfactory, as we get information more frequently and in more detail than it was possible to obtain by Western Union or Bell Telephone service. Formerly we paid the Western Union \$12.00 per month for four grain quotations daily and \$6.00 per month for the live-stock market which this service has eliminated.

Our receiver cost about \$160.00 with head set, but we have, in addition, an amplifier or horn, costing \$45.00, similar to the old-fashioned phonograph, which we use most of the time and the voice can be heard plainly by anybody in the room when there is not too much noise. The only power required for operating this service is a small storage battery, same as used in Ford cars, costing about \$25.00. As this battery must be charged every week or two, according to the time the receiver is used, we have also a rectifier costing \$28.00 for charging same from our city electric light current. However, this is not necessary. This makes a total of \$258.00, which we figure will soon be saved out of the \$18.00 per month that we were paying for the Western Union service.

When we give Mr. Bush an order for execution on the Board of Trade, it is not necessary for him to call us by phone to report when same is filled for he announces it over the wireless. As we trade under a code number, others receiving the message will not know for whom the confirmation is intended. This service not only reduces our expense but makes it unnecessary for Mr. Bush to phone frequently customers who have trades open or are expect-

ing to make trades if market conditions warrant.

This service is merely in its infancy for one thousand can receive at the same time as easily as one, which eliminates much work on the part of the sender, who has previously been compelled to repeat the entire market for every telephone call.

The Westinghouse Electric Co., who manufactures the receivers, have large sending stations at Pittsburgh, Newark, N. J., Springfield, Mass., and Chicago. Every evening during the week, these stations have musical concerts which are broadcasted through the United States and anyone within the range of their station can hear same. We frequently hear musical concerts from Pittsburgh and grand opera from Chicago and recently heard a very excellent program which was sent by the Radio Corporation of New York City. Mr. Bush, at Tuscola, also sends out a Victrola concert every Tuesday and Friday evenings for the entertainment of his customers.

Altho this service is entirely new, it is so successful that it certainly is the coming means of broadcasting markets and other public information. It is now possible for Chicago with a strong sending apparatus to give markets to every one who installs a receiver within several hundred miles. However, at present the Chicago sending station does not reach us as clearly as New York and Pittsburgh, who evidently have much more powerful senders.—Big 4 Elevator Co., W. Ernest Orndorff, Prop., Mattoon, Ill.

Getting the Markets by Wireless.

Grain Dealers Journal: We installed a receiving outfit made by the Westinghouse people and installed by the Tuscola Radio Supply Station, and have been getting our markets regularly and very satisfactorily for the last month.

We get a market every thirty minutes and for a duration of ten minutes each time, which makes a steady market for one-third of the entire time of the session, with high and low markets between, which makes a very satisfactory arrangement for a country dealer.

James Bush of Tuscola furnishes the markets by Radio for this section.—Farmers Grain Co., Metcalf, Ill.

Cost of Wireless 'Phone Outfits.

The cost of a wireless telephone receiving equipment depends on the distance from which messages are to be received, principally.

One of the least expensive is what is known as the Aeriola, Jr. The cost is only \$25, plus \$7.50 for the antenna.

This outfit is a single circuit receiver involving a vario meter tuner with fixed series condenser. The detector is sensitive at all points, assuring easy and dependable operation. An extra set of crystals is supplied. A single indicating arm operating over a graduated dial assures quick and accurate tuning for telegraph or telephone station within its range of 190 to 500 meters wave length. The head telephones are connected to the usual stopping condenser. A special compartment is provided in the case for the head telephone, so that the unit is always complete and ready for instant use. This entire design provides a degree of selectivity not usually found in this type of receiver. It will receive messages within 100 miles.

For general broadcasting reception, to receive messages originating nearby, or 1,000 miles or more distant, the equipment costing \$235 to \$275 complete is recommended. In this set, amateur and ship stations may be received at any wave length within its range of 180 to 700 meters. The addition of a load coil, type CB, allows the reception of signals on a wave length up to 1,600 or 2,800 meters, depending upon the characteristics of the antenna. This makes the set suitable for the reception of Arlington time signals and weather reports.

Planning Grain Elevators by the Use of Flow Sheets

Every grain elevator manager, superintendent and foreman knows how important it is that the bins and the handling equipment in his house be so laid out with reference to each other that there will be some flexibility in its operation. Failure to provide flexibility makes a grain elevator a "slow house," the kind so frequently condemned by elevator operators. On the other hand, an elevator in which the handling and conditioning bins are accessible to two or more elevator legs, makes it possible to handle grain in a minimum of time and at a minimum of expense and constitutes a "fast house."

Added flexibility adds to the first cost of an elevator so that the extent to which this feature should be sought depends upon the purpose for which the elevator is to be used. It is only in very rare cases that "slow houses" are deliberately planned and built as such. They are more often the result of faulty designs and lack of attention to the essentials that differentiate between so-called "fast" and "slow" houses.

An excellent method of studying the handling features of an elevator is to develop and study a flow sheet while the elevator is being designed. This method makes it possible to discover and to correct shortcomings in arrangement that would not otherwise be apparent. Considering the long life of a modern concrete elevator and the great loss sustained thru inaccessible and dead storage space certainly any method that will make it possible to improve on its arrangement before the elevator is built is worth while.

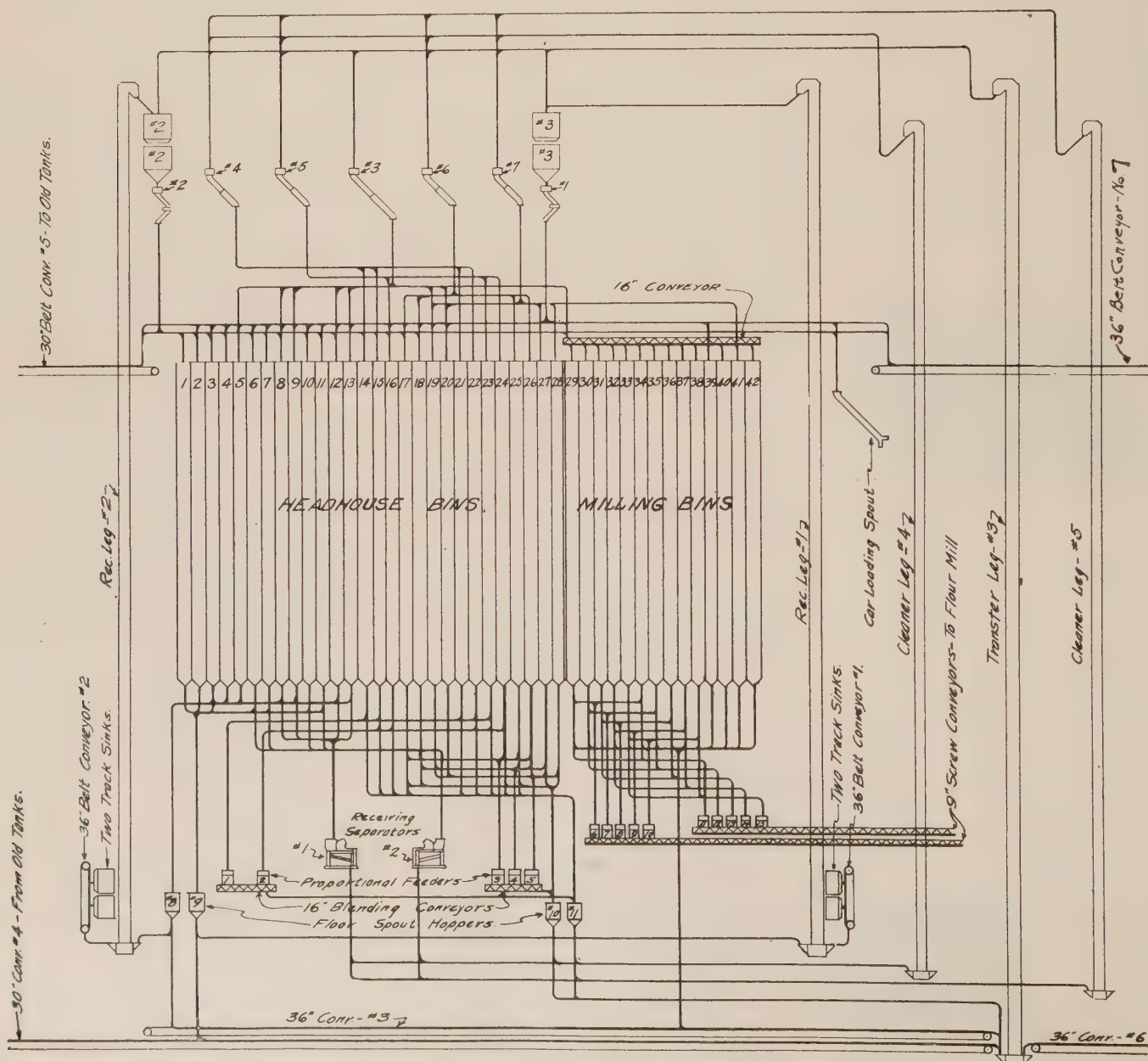
The accompanying diagram, Fig. 1, is such a flow sheet showing the handling possibilities in the Red Star Milling Co.'s new reinforced concrete grain elevator at Wichita, Kansas. Fig. 2 is a bin plan and Fig. 3 a photograph of the same elevator.

The design of this elevator presented some unusual features. Primarily the elevator was built to receive, store and condition wheat for the company's new 4,000 barrel flour mill. However, provision also had to be made for handling grain with some facility through ten

large storage tanks already in use in connection with the Red Star Co.'s mill "A." In addition to this it was desired to design and build the headhouse so that at some future time storage tanks up to one million bushels capacity could be added. The greatest difficulty of the whole problem was to design the headhouse so that it would economically handle the comparatively small quantity of grain required now for milling purposes and at the same time make it possible to increase the handling capacity several times, which will be necessary when the storage tanks are built. Most of the carrier belts are 36-in. rubber, so have large conveying capacity.

The picture shows the part of the elevator already built which includes the headhouse with 28 rectangular bins, 14 milling bins and the connection to the old storage tanks. Only three of the five elevator legs and a corresponding amount of the other equipment shown on the flow sheet have been installed so that the flow sheet refers more particularly to the complete elevator than to the part that has been built.

It will be noted from the flow sheet that this elevator contains 15 proportional feeders which receive grain direct from bins and drop it to screw conveyors for blending and blending conveyors are not generally found in grain elevators and are not conducive to the rapid handling of grain. Grain from feeders Nos. 1 to 5 is dropped to 16-in. blending con-



Flow Sheet of Wheat Handling Plant of Red Star Mill at Wichita, Kan.

veyors, then to floor spout hoppers, on to legs 3 and 5 by which it is elevated to any bin. Grain from the milling bins drops to ten proportional feeders Nos. 6 to 15, is blended and carried to mill by means of two 9-in. screw conveyors. This equipment is used only after the grain is received into the elevator and has been cleaned and stored.

Of the elevator legs shown in the diagrams only No. 1, No. 3 and No. 4 have been installed. Even with two legs missing every bin in the house is accessible to one or more legs. Receiving legs No. 1 and No. 2 are available for transfer purposes for a large number of the bins and leg No. 3 can discharge into and draw out of any bin in the

house. Legs No. 1, No. 2 and No. 3 are 10,000 bushel capacity legs. The 5,000 bushel cleaner legs No. 4 and No. 5 can each receive from either cleaner and in addition can be used as transfer legs for several headhouse bins. Cleaner No. 2 and leg No. 5 have not been installed.

The 28 bins in the headhouse have a total storage capacity of 160,000 bus. The 14 milling bins have a capacity of 140,000 bus., making a total capacity in the new part of the elevator 300,000 bus. It will be possible to add another 1,000,000 bus. storage tanks which could be served from this headhouse. The 10 old concrete storage tanks shown in the plan have a capacity of 380,000 bus. so that this

new headhouse now serves a total of 680,000 bus. storage. The 10 old tanks formerly were used and are still connected with an old wooden headhouse. All of the new headhouse and the milling bins as well as the 10 old tanks are of reinforced concrete construction.

The elevator is equipped with a modern dust collecting system furnished and installed by the Cyclone Blowpipe Co. The system is divided into two parts one serving the top of the house and the other the bottom. The dust collected by the dust collecting system as well as the dust from the receiving separator goes into a conveyor which takes all of the dust to a feed mill in the new flour mill building.

Legs 1, 2, and 3 are of 10,000 bus. capacity per hour. Legs 4 and 5 have a capacity of 5,000 bus. per hour each. Grain is received in four track sinks, two over each of the two receiving belts. The two sinks working together are provided with interlocking valves. The garner bins have a capacity of 2,200 bus. each and the scale hoppers a capacity of 2,000 bus.

The elevator is electric driven throughout, each leg and each conveyor being driven by a motor. Silent and roller chain drives have been used to connect the motors to the legs and belt conveyors. All motors were furnished by Westinghouse and the chain drives by the Link Belt Co. The transmission machinery was furnished by the Webster Mfg. Co., and the receiving separator by the S. Howe's Co. The total connected horse power of motors in the elevator when completed will be 500.

The Red Star Milling Co.'s new 4,000 barrel mill "C" as well as the new elevator, both shown herewith, were designed and the construction was supervised by the Sherman Engineering Co., now Horner & Wyatt. The construction work was done by the Geo. H. Siedhoff Construction Co.

Unfair Policy of the I. C. R. R.

By OWEN L. COON.

The Illinois Central is one of the very few roads that today is refusing to settle any clear record grain claims on cars moving from country points to terminal markets, in marked contrast to the fair minded policy of the Rock Island, Santa Fe, Wabash, Missouri Pacific, Burlington and C. M. & St. P. R. R.

Do you know that the Illinois Central is one of the very few roads that today is refusing to settle any claims for grain leaking at the grain door; in the same marked contrast to directly opposite policies on the part of the other roads mentioned in the foregoing.

Charles Markham, President of the I. C. R. R., would have us believe his road is an exceptional one for fairness to its patrons. We want to take this occasion to tell him that the grain public, one of the chief patrons of his road, is interested more in receiving concrete instances in the just and fair handling of their grain claims, rather than so many pleasant words and kindly sentiments that spell nothing in reality but a policy directly opposed to that of other leading grain carrying railroads—a policy designed to defraud grain shippers out of many dollars justly due them for grain lost in transit.

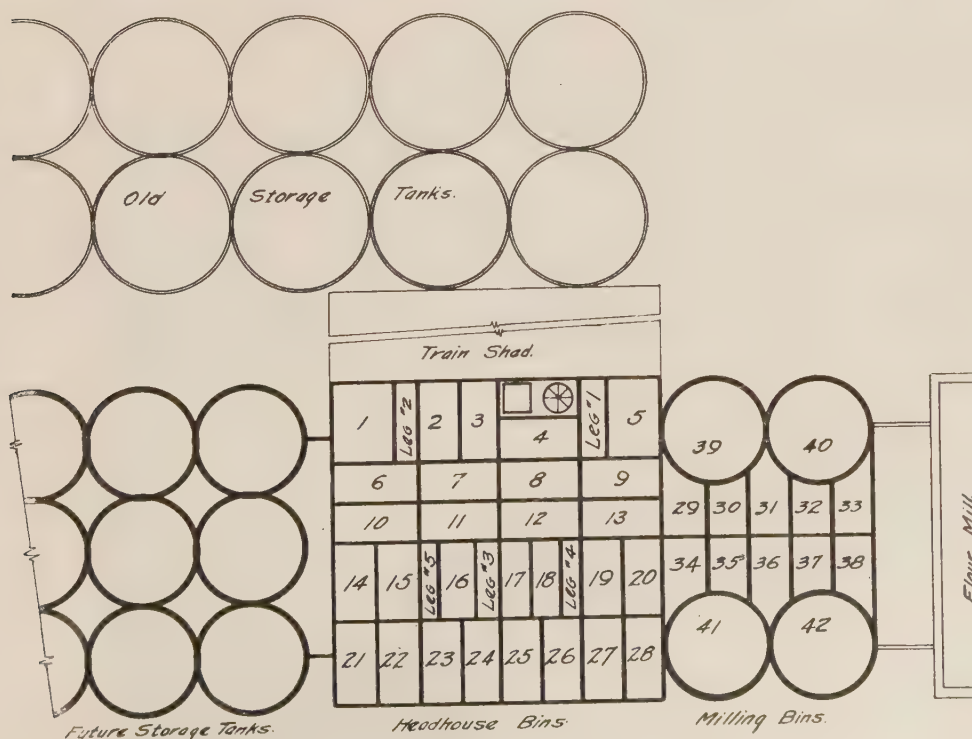
EVERSHARP magazine pencils, one of the most convenient pocket pencils ever carried by man, are being distributed among its friends by the Bert A. Boyd Grain Co.

VOTE on an amendment to the Federal Reserve Act requiring that a farmer be named in the next vacancy on the Federal Reserve Board will be taken by the senate Jan. 17.

PUBLICATION of the *Market Reporter* by the Dep't of Agriculture will be suspended with the Dec. 10th number until its continuance is authorized by congress. This is in accordance with a provision of an act of March 4, 1921, requiring all dep'ts to suspend publication of periodicals not authorized by congress.



Concrete Working House of Red Star Milling Co. at Wichita, Kan.



Bin Plan of Wheat Handling Plant of Red Star Mill, Wichita, Kan.

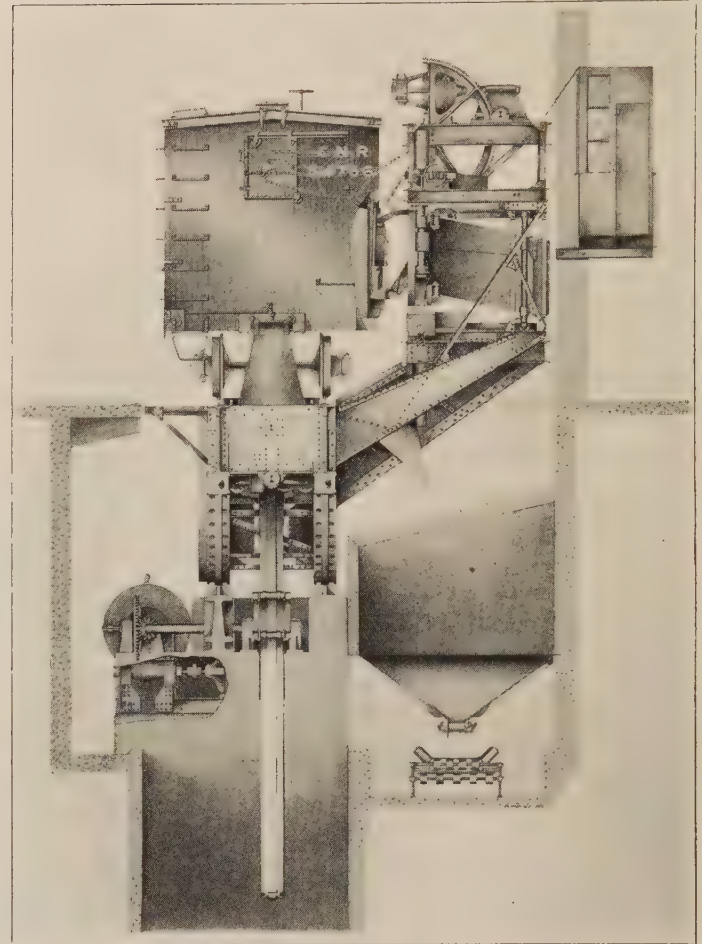
Mechanical Car Unloader in Canadian Elevator

The desire to reduce operating costs, expedite handling and promote greater efficiency has prompted the development of better devices for handling grain so that we have progressed from the hand manipulation of bags that was the accepted practice but a few years ago to the present day methods making possible the handling of tons where only pounds could be moved before. Grain is whisked from place to place on wide conveyor belts that travel with the speed of the wind, or lofted from boot to head in buckets that follow after each other in such rapid succession that the eye is unable to distinguish clearly their outlines.

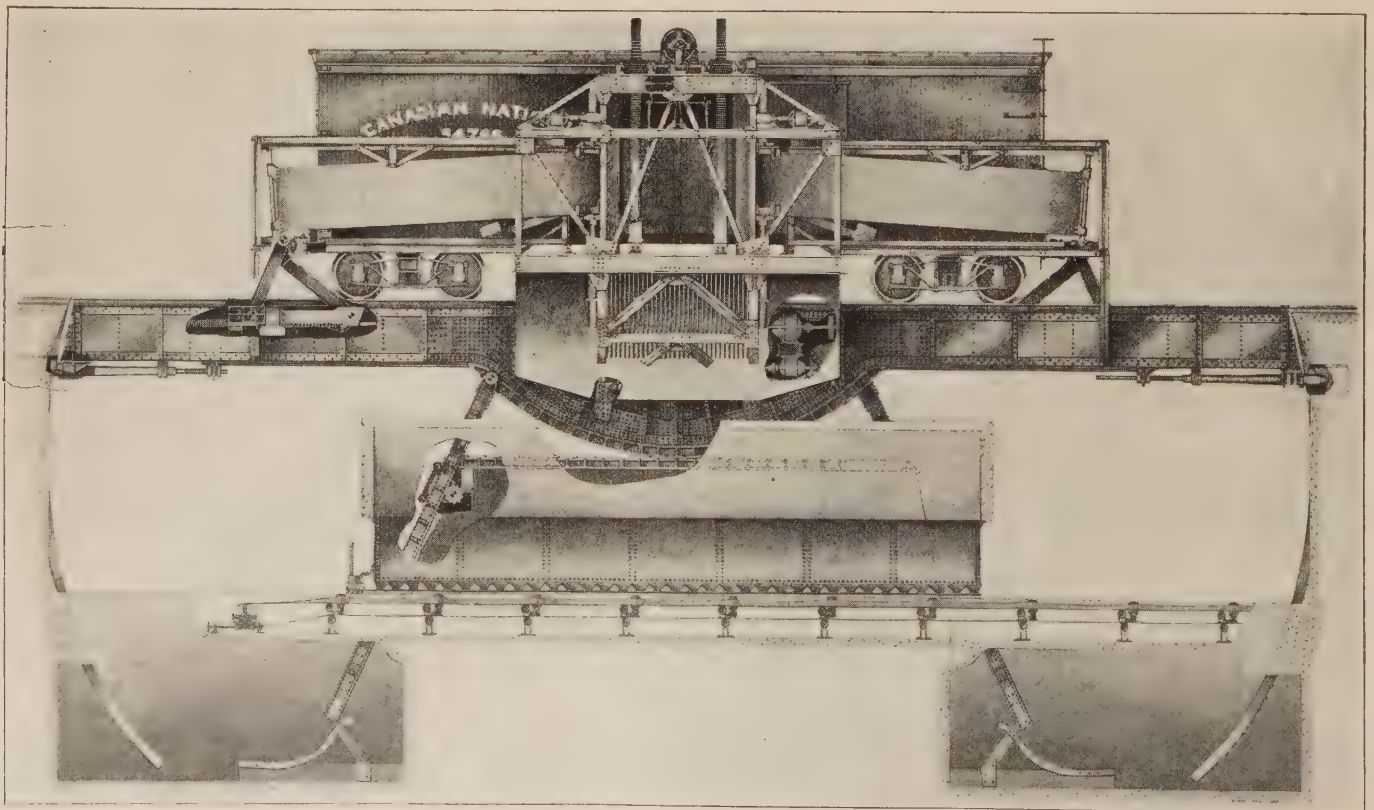
During practically the whole of the period of development it was apparent that greater speed and economy of operation must be obtained in the unloading sheds of terminal elevators, where grain is taken from the cars in which it has made one stage of its journey from producer to consumer. Power shovels early supplanted hand methods but even this improvement did not wholly satisfy. Inventors and engineers were busy for years attempting to perfect true mechanical unloading of cars, and numerous mechanisms for the purpose were brought forth. None of them received enough consideration to warrant a trial until comparatively recently. Now, at least two large terminal elevators are equipped with mechanical unloading devices. The Stewart-Link Belt unloader, installed in the Northern Central Elevator of the Pennsylvania Railroad at Baltimore, Md., was described on pages 871, 872 and 873 of the Journal for May 10, 1920. The other, in the elevator of the Canadian National Railways at Port Arthur, Ontario, Canada, is shown in the engravings herewith.

The elevator at Port Arthur is located near the outer end of its site, so that thru trackage could not be used. The unloading shed was placed at the shore end of the work house, and the loaded car tracks and empty car tracks placed side by side as shown in the plan drawing. Each yard track is long enuf

to hold 30 cars. The spring switch near the unloader is open to the empty track, and the track is so graded that empty cars run off the unloader and clear themselves by gravity on the hump yard principle. Loaded cars are pulled to the unloader by means of an endless



End Elevation of Car Unloader in Elevator of Canadian National Railways, Port Arthur, Ont.



Side Elevation of Car Unloader in Elevator of Canadian National Railways, Port Arthur, Ont.

cable operated by car pullers, specially designed cable grips being used for attaching the car to the moving cable. Loaded cars may be set into the elevator yard and empty cars removed without interruption of the unloading process.

A hand unloading pit equipped with the familiar power shovels is located back of each of the 4 unloaders to be used for unloading bulkhead cars or extremely bad order cars. This location permits slow unloading to be carried on without interruption of rapid unloading on the dumpers.

Grain from unloaders and from hand pits is removed from receiving hoppers by belt conveyors in the usual manner.

The unloaders are of a type requiring end tilt only, the advantages claimed for this over that requiring both end and side tilt being that the side tilt causes strains in cars for which they were not designed, while the additional clearance required for the side tilt is said to make necessary an unduly wide track spacing that results in consequent expensive construction for housing facilities.

Each unloader consists of a bridge made of two built-up steel girders rigidly braced together. The lower part of the girders is formed into a circular tread which rests on steel tracks supported on a heavy concrete foundation. Lugs on the tracks mesh with slots in the girders to insure proper alignment at all times, and a roller at each end of the bridge operates in a steel guide set in the concrete structure of the unloader foundation as a further aid to keeping the bridge in alignment.

The tipping machinery consists of a 75-h. p. electric motor connected thru a worm gear and differential to a ram at each end of the bridge. By means of this the bridge can be rocked to an angle of 45 degrees in either direction.

End locks are provided for locking the four corners of the bridge platform to the foundation. These locks consist of heavy pins which slide into cast iron shoes set in the foundations, the pins being simultaneously operated by a 5-h. p. motor with suitable screw and link mechanism.

Bumpers for centering the car on the bridge platform and for holding the car in position during the tipping operation are of the collapsible type, formed of heavy steel castings, hinged and supported on a crosshead in the guideway. These are operated by large diameter screws driven from a motor located near the center of the bridge. The bumpers hold the car by clamping over the drawbars.

A grain door remover is an essential portion of the unloader. It consists of two steel levers cast into gear segments and operated by a motor connected by a worm transmission to a counter shaft having a steel pinion at each end. The door remover may be quickly adjusted to varying heights of car floors. In operation the remover forces the door inward without injuring it, and by a continuous motion carries it inward and upward to the roof of the car where it remains during the unloading operation. Afterward, as the remover is drawn from the car, the door drops to the car floor.

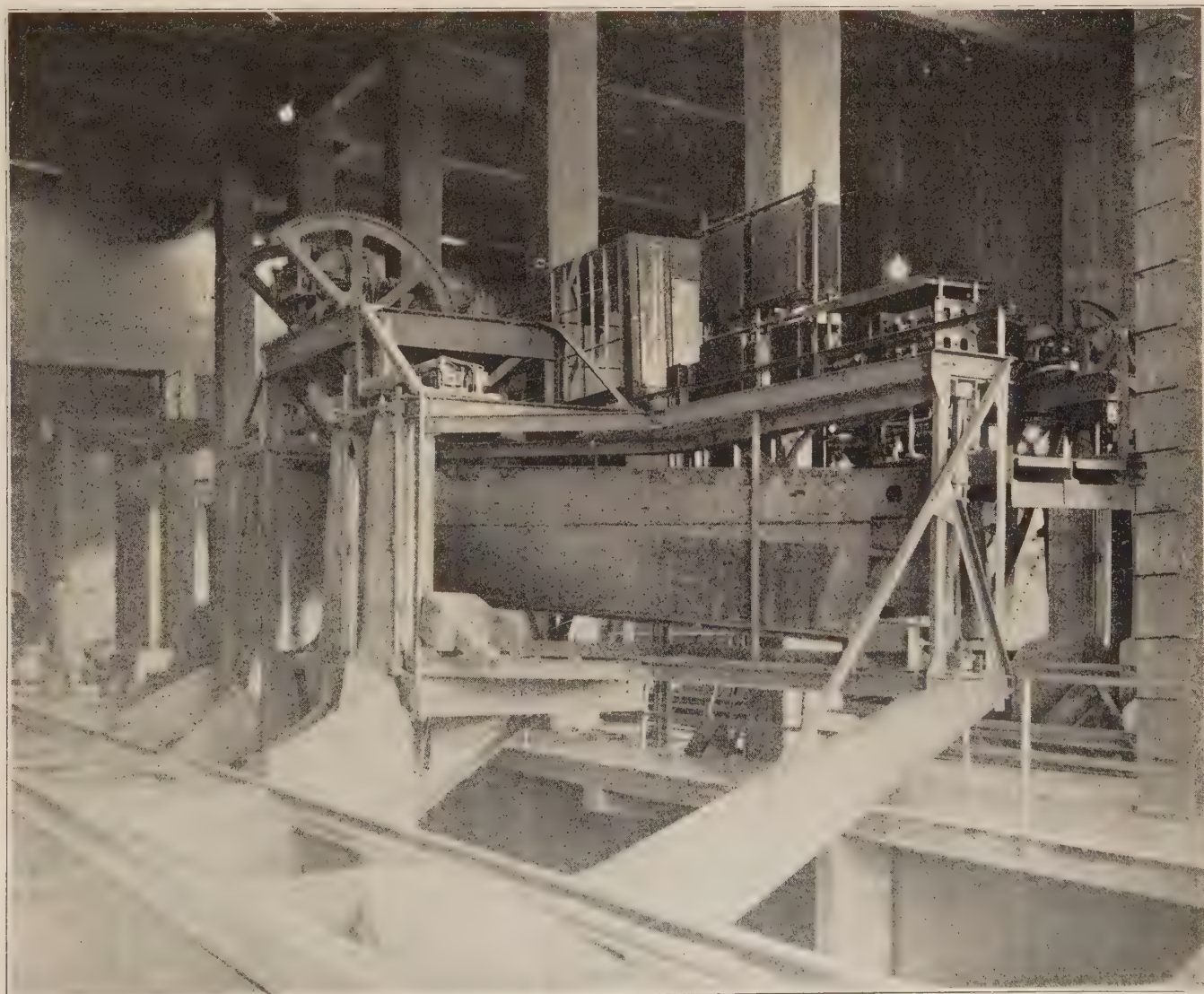
Two deflecting baffles are provided, one at each side of the car door, each operated by

a motor connected to a drum shaft with a worm transmission gear. In order to provide for variation in the height of car floors, the forward end of the baffle is adjustable by means of a large nut supported in a casting under the baffle guideway. As the baffle moves into the car it is lowered until it rests on the car floor, fitting tightly to the car floor and to the far side wall of the car. Deflecting plates are arranged under the car door to carry all grain well to the center of the receiving hopper, and flexible deflectors are arranged to prevent any leakage of grain along the side of the car.

The operator's cab is located directly opposite the car door and is provided with glass windows so that the operator has an unobstructed view into the car at all times during the dumping operation. He controls all operation of the unloader by means of an electrical control board in a convenient position before him.

Features bearing on the safety of operation were given careful consideration. The rocking bridge is in stable equilibrium at all times, and even if breakage should occur in the tipping mechanism the bridge will immediately come to a horizontal position without damage. Motors are equipped with solenoid brakes; transmission is by self-locking worm gears so that no motion can take place except when actuated by electric current, and operations are electrically interlocked so they cannot be carried out in improper sequence.

In operation a loaded car is drawn onto the unloader and centered and blocked. The end pins are withdraw and the door remover



View of Car Unloader Installation at Elevator of Canadian National Railways, Port Arthur, Ont.

applied to push the door inward and upward. About 10% of the grain now runs out of the car. The cradle is tipped 20 degrees in one direction without the insertion of a baffle and an additional 25% of the grain flows out. One baffle is now inserted and the car tipped 45 degrees in the opposite direction. This results in removal of a total of about 85% of the grain. The one baffle is withdrawn and the other inserted and the car is tipped again in the first direction to an angle of 45 degrees and the remainder of the grain flows out. The baffle is withdrawn, the car leveled, door remover taken out, end pins inserted, bumpers dropped and the car is ready for final inspection and removal. In practice the actual unloading operation is said to require approximately 4 minutes for a car of wheat and somewhat longer for a car of oats. Added to this is the time consumed in pulling the cars onto the loader and shunting them off, and results at the Port Arthur elevator indicate that in a 10-hour day the four unloaders handle about 250 cars, or an average of 6 cars per unloader per hour. The operating staff required is one operator, one attendant to assist the operator, and two laborers to move loaded cars on and empty cars off the platform.

The Port Arthur elevator of the Canadian National Railways was designed and built by C. D. Howe & Co., who, in collaboration with the Dominion Bridge Co., Ltd., designed the unloaders.

THE FEDERAL LOAN bureau to be created in the bill advocated by Senator Ladd would make advances on warehouse receipts and city real estate and on farm improvements to farmers.

THE BULGARIAN parliament abolished the grain consortium recently. This action is said to have been urged by the Allied Reparations Commission because of large losses incurred by the consortium. One of the principal difficulties was the inadequacy of governmental storage facilities; but the consortium was frequently charged with inefficiency, wastefulness, and even corruption. Opponents of the consortium attributed to it a large share of the economic troubles of the country, the unfavorable trade balance in 1920, and the rapid depreciation of the lev. The export grain market is now open to all.

Designation of Contract Markets.

The various grain exchanges have been granted licenses as contract markets by the Sec'y of Agriculture after filing an application of which the following by the Milwaukee Chamber of Commerce is an example:

The Chamber of Commerce of the City of Milwaukee is an incorporated ass'n of persons engaged in the business of buying and selling grain and receiving the same for sale on consignment, and is located at a terminal market, to-wit: Milwaukee, County of Milwaukee, State of Wisconsin, upon which cash grain is sold in sufficient volumes and under such conditions as fairly to reflect the general value of the grain and the difference in the value between the various grades of grain, and has recognized official weighing and inspection service, to-wit: A weighing and inspection service, authorized in Section 11 of the Special Charter creating the Corporation, which states that: "Said corporation shall have power to elect or appoint one or more persons, as it may see fit, to examine, measure, weigh, gauge or inspect, flour, grain, provisions, liquor, lumber, or any other article of produce or traffic, commonly dealt in by the members of said corporation, and the certificate of such person or inspector, as to the quality or quantity of any such article, or his brand or mark upon it, or upon any package containing such article, shall be evidence between the buyer and seller of the quality, grade or quantity of the same, and shall be binding upon the members of said corporation, or others interested, and requiring and assenting to the employment of such weigher, measurer, gauger, or inspector; nothing herein contained, however, shall compel the employment by any one of such appointee."

This exchange has adopted a rule in full compliance with the Act of Congress known as The Future Trading Act, and copy of such rule is attached hereto. A copy of the rules of the exchange is herewith submitted, same being in the form of an Appendix to the Annual Report, also the list of members of the exchange on pages 15 to 23 inclusive, of part 1 of the Report, and said exchange does hereby make application of the Sec'y of Agriculture for designation as a contract market under and in accordance with the provisions of said Act.

Attest
H. A. PLUMB,
Secretary.

H. H. PETERSON,
President.

The Chicago Board of Trade is among those designated as a contract market, but is on a different and more advantageous footing, as the provisions of the law in Sec. 5, requiring the filing of reports, the admission of commission rebaters to membership and the disciplining of manipulators, have been set aside temporarily by the Supreme Court of the United States. The Chicago Board has been granted a license by the secretary without having made

application therefor, the injunction obtained by eight individuals preventing it from taking steps to conform to the Future Trading Act. The effect of the granting of the license without compliance with the law is to protect all members from liability for the tax of 20 cents per bushel on all trades made on an unlicensed exchange.

Unless the secretary had granted the license the members of the Board selling grain for future delivery, all of them, would have been forced out of business immediately as the 20 cent tax is prohibitive. Manifestly it would be unfair to force merchants out of business for failure to comply with an unconstitutional law. The Court, the officers of the Board and the attorney of the eight complainants are to be congratulated on the equitable adjustment arrived at.

In good faith the Chicago Board, however, by a vote of 403 to 7, adopted amendments to its rules that will make early compliance with the law possible, eliminating only those sections of the amendments, 1 and 6, that it would have been a violation of the injunction to adopt.

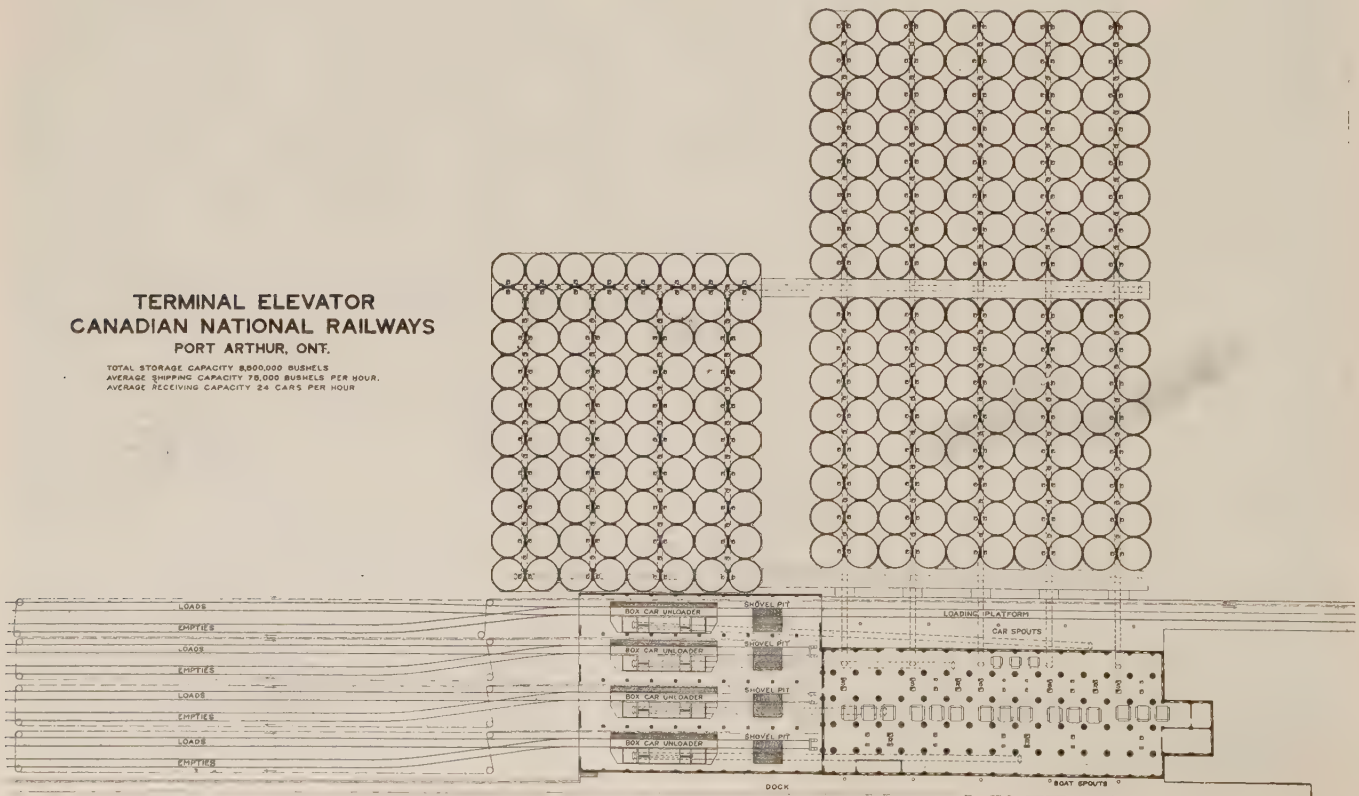
The act went into effect Dec. 24.

The Supreme Court will hear the injunction suit Jan. 3.

It is unlawful, since Dec. 24, to make a trade in grain for future delivery outside of a grain exchange, if the law is valid. The law attempts to discriminate between sales of cash grain and futures, but in view of the fact that there is no difference between the grain used for delivery on both alleged classes of transactions the distinction attempted is worthless. For example, two dealers make a trade in the month of December calling for the delivery of four carloads of wheat in February, amounting to 5,000 bus. The same dealers, the same month make another contract, without reference to carloads, calling for 5,000 bus. for delivery in February. Under the law as forged by the legal blacksmiths they seek to hold the first trade subject to no tax as a "cash" transaction, while the last mentioned trade is subject to a tax of 20 cents per bushel. If this point ever is presented to the courts their decision would be interesting. What difference, from a legal standpoint, is there in closing a trade by the delivery of four bills of lading calling for 5,000 bus., or the delivery of one warehouse certificate calling for 5,000 bus.?

TERMINAL ELEVATOR CANADIAN NATIONAL RAILWAYS PORT ARTHUR, ONT.

TOTAL STORAGE CAPACITY 800,000 BUSHELS
AVERAGE SHIPPING CAPACITY 75,000 BUSHELS PER HOUR.
AVERAGE RECEIVING CAPACITY 24 CARS PER HOUR



Plan of Canadian National Railways Elevator at Port Arthur, Ont., Showing Layout of Box Car Unloaders and Track-age System.

Grain Dust Explosions: Their Causes and Prevention

[From an address by R. H. Moore, chief engineer, W. W. Sly Mfg. Co., before Weighmasters-Scalemens Conference.]

For a dust explosion it is necessary to have a quantity of fine, dry dust in suspension in air containing oxygen, and heat. Investigation has established several causes of dust explosions—that is, forms of heat which set off the explosive mixture of dust, and air prevalent in grain elevator operation. These causes can be listed under three general classifications, sparks, heat, and open flames.

Under sparks would come foreign materials entering grinding rolls causing sparks; foreign material entering fans, causing sparks when the particles come in contact with the fan blades; the glowing embers of tobacco in a pipe in the case of an operator smoking in the elevator and static electrical discharges.

Under the classification of heat would come defective mechanical equipment, such as shafting out of line causing hot boxes, loose pulleys, rubbing belts, choke-up in a leg or conveyor, belts rubbing on spillage under the discharge, and fan wheels shifting on the shaft and rubbing the housing.

Under the classification of the open flame we might put open gas lights, a match struck, an electric arc from defective electrical equipment, the exposing of the filament in an incandescent electric light bulb would cause the same conditions as the open flame, and spontaneous combustion of an accumulation of grain dust spillage.

Spontaneous ignition of dust in suspension is impossible. This is better understood when we realize that combustion, ignition, or burning, whichever we may call it, really is rapid oxidation of a material, propagated by heat. If we have two equal amounts of a combustible material, one of them being oxidized rapidly in the form of combustion, the other being oxidized slowly as in decay, when these two samples have been completely oxidized each has given off an equal amount of heat.

Spontaneous combustion is the storing of the heat given off by slow oxidation, thus raising the temperature of the material to such a point that combustion can start in. This condition prevails only when the substance that is oxidizing is protected from the cooling effect of air currents. Even though there may be slow oxidation going on in dust in suspension, the large amount of air surrounding

each particle of dust dissipates the heat so that the rise of temperature is not appreciable. If we have a volume of dust packed in some remote cavity so that it may be overlooked, slow oxidation can occur in this material especially in the presence of a limited amount of moisture, making the oxidation more active. The heat given off from this slow oxidation being well insulated on account of the nature of material within which this chemical activity is being carried on, also on account of this same condition shielding the material from the cooling effect of air currents, the temperature gradually rises. This temperature rise makes the oxidation more rapid until finally the material is burning. Such combustion will be slow and incomplete inasmuch as sufficient air cannot reach the smoldering particles to support a flame. We now have a condition almost identical to the commercial gas producer.

The incomplete combustion of a material composed of essentially carbon and hydrogen, generating carbon monoxide and hydrogen gas. This gas is lighter than air, and will rise from the source of generation until it is dissipated by the surrounding atmosphere, or is collected in inverted pockets of the structure within which this chemical action is being carried on. The burning progresses slowly and follows the path of the ascending gases through a pile of dust. Finally it reaches the surface at the same point from which the column of gas is rising. As soon as the incomplete combustion reaches the surface of the material it is supplied with sufficient air to support complete combustion, and a flame results. This flame bursts out at the point from which the column of combustible gas has been rising, and we can readily see that it is not improbable that this gas would be ignited, the flame following up the column of gas until the gas is so diffused with air that it will no longer support combustion, or until it reaches a quantity of retained gas in an inverted pocket, in which case a gas explosion would occur.

A Series of Explosions: The gas explosion in itself would not be sufficient to do great damage. However, it would generate a considerable amount of heat and would cause a rush of air in all directions, throwing into suspension the dust on the walls, floor and ledges of the compartment in which it occurred. This dust would be highly explosive, and being attended by the heat of the gas explosion would undoubtedly be ignited causing a second explosion more intense than the first. This explosion acting as a primer similar to the first explosion, throwing more dust in suspension, and igniting that dust by the heat generated and in this way a dust explosion would be propagated thruout the entire structure wherever there was combustible dust and oxygen bearing air.

The foregoing is to explain that even though spontaneous ignition of dust in suspension is impossible, a terrific explosion can result from the spontaneous combustion of an accumulation of grain dust and spillage and that this explosion can occur even though all equipment in the elevator has been idle, allowing the dust in suspension to settle out of the air.

Wood vs. Concrete Elevators: It has been suggested that wooden elevators are not as liable to explode as the modern concrete elevators. This may be true. However, it is a matter of record that there have been explosions in wooden elevators, but that the destruction has not been as great as that resultant from an explosion in a concrete elevator on account of the more flimsy construction of the walls allowing an explosion to blow out a wall

and vent, rather than build up a pressure and propagate the explosion thruout the other parts of the structure.

The percussion theory of simultaneous explosion, or explosions resulting from the pressure developed by other explosions is an established fact to coal mine explosion investigators.

Sudden pressure such as is established at the time of an explosion is attended by a sudden rise in temperature; the resulting absolute temperature being in direct proportion to the resulting absolute pressure. This law of physics was taken advantage of in the construction of oil burning engines in which free air is admitted to the cylinder. This air being compressed by the upward stroke of the piston to a high pressure which results in a high temperature. At the point of maximum compression and therefore maximum temperature the fuel is injected. The temperature is so high that the fuel is immediately ignited. Comparing this with our grain elevator problem; assuming the temperature of the atmosphere in the elevator to be 50° F. a pressure of 15 pounds per square inch gage would result in a temperature of 510° F. providing that no heat could escape through the walls. In the various concrete elevators which have exploded, referring especially to the Northwestern Elevator in Chicago, where the explosion occurred in the basement, there was a considerable amount of damage wrought by explosions inside of the storage bins.

It seems almost impossible that the explosion could propagate up through the legs and man-shafts and still exert sufficient pressure on the inside of these storage bins to create such havoc. It is my theory that there would be independent explosions within the storage bins set off by the sudden rise in temperature, attending the sudden rise in pressure in these bins resulting from the explosion below, and I do not believe that the flame actually penetrated the workings from the basement up through the work house to the bins. The explosions in these bins were in my mind set off by percussion.

Dust free elevators will not explode. It is therefore essential to the safety of the grain elevator that the dust in suspension, also the dust and grain spillage be eliminated. Direct exhaust of incoming grain between the cars and the scales and outgoing grain between the scales and the car cannot be permitted by the weighmaster at it has been proven by experiments conducted by the Weighmasters' department in Chicago that such direct exhaust of grain reduces the weight, not by the removal of dust, but by the drying effect of the air, reducing the moisture content.

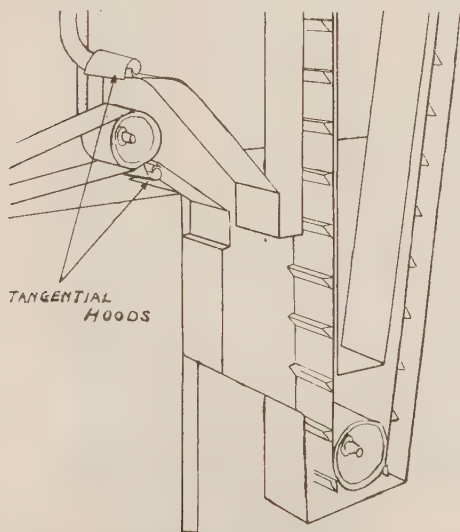
In the case of incoming grain the samples are taken from the car before it is unloaded. If direct exhaust is applied to this grain between the car and the scale, not only is there a loss in weight by the reduction of the moisture content, but there is also possible a change in grade. If we analyze the conditions fairly we will come to the conclusion that the weighmaster is absolutely just in his limitations on the exhaust of grain between the car and the scale.

The weighmaster must represent justice to the shipper, to the carrier and to the elevator, and it is the duty of those specializing in exhaust systems to meet the requirements established by the weighmaster instead of to contend against them.

Exhausting the Dust: In a modern car unloading system, the grain is deposited into the hoppers from whence it drops through feeding valves onto the belt conveyor. It is then carried to the elevator boot and elevated to the scale garner.

It has been my experience in the observations made on such car unloading equipment in operation that there is no appreciable loss of dust from the grain at the point at which it drops from the car hoppers onto the conveyor. The small amount of dust that does

[Continued on page 869.]



Tangential Exhaust Hoods Applied to Belt Conveyor Discharge at Elevator Boot to Collect Dust and Chaff.



A Christmas Gift to Myself

BY LESTER G. HERBERT

For years I have remembered my family, friends, and employees at Christmas time. I have taken care of the business part of the Christmas program and let my wife do the rest.

For several seasons the condition has grown more and more tense, and when the 25th day of December actually arrived, I was pretty well frazzled, and our home was given over to the season's festivities—so there was no time for thought.

A survey of my Christmas gifts has sometimes brought me amusement; at other times exasperation, but always an appreciation of what those who remembered me tried to do in the way of making me happy.

I have been afflicted with the usual fancy ribbon-tied boxes of atrocious cigars, with new lace curtains for the living room, with a wonderful carved settee for the front hall, with solid silver knives and forks. Last year I rather expected my wife would give me a handsome fur cape. Of course, if I didn't wear it, she could—but in place of that, bless her heart, she presented me with a wonderfully illuminating set of Shakespeare. She is the President of the Shakespeare Club, and perhaps doesn't realize that my own reading has to be along progressive business lines, and if ever I do get a chance for a little relaxation, I might as well confess that I like a good detective story.

Well, to come back to the Christmas gift. The period between Christmas and New Year's is always crowded with endless details and arrangements for getting the business for the calendar and fiscal year closed. So it is customary for me to come to the first day of the New Year hurried and crowded and *without any definite plans* for the improvement of my own personal efficiency or business methods.

I do not scorn the "Resolutions" which people so commonly make—and break! Resolutions are a good thing. They help us to face the weak places in our own management, and to plan for strengthening those weak places. Even recognizing them is a good thing. And trying to overcome them sets our faces in the right direction. In some instances we actually keep the goal of Better Methods in sight, and make some advancement, even if it is spasmodic. Even this you must grant, is better than to sleep by the way.

Last year at Christmas time I wanted a large, comfortable swivel chair for my office. I needed it, and I had a comforting hope that my family would heed my expressed desire for it and surprise me Christmas morning. I could have bought it of course—and eventually did—but somehow I wanted to feel that they understood what I wanted and cared enough to gratify my wish.

Nobody thought of it. Why should they? But then and there I resolved that next year I should do all I could for the rest—and then I would buy myself something that I particularly wanted.

But alack! and alas! The strain of business this year has been heavy, and I am not so sure that I have not done a wise thing in the inexpensive selection of a gift for myself. Perhaps this gift will be worth more to me than something made of wood, wool, silk or steel.

Knowing how busy I always am at the holiday season, I deliberately cut the office one bright November day and drove to a neighboring city, registered at the hotel, and took a room where I could be undisturbed. I had a quiet, restful time. No one knew I was there,

the telephone did not ring, and no one dragged me forth on any business pretext whatsoever.

Incidentally, I constructed a real Christmas gift for myself, and it is all ready in a long envelope and fastened with tuberculosis seals. It will be among my remembrances Christmas morning. I may show it to the family and I may not. It will depend upon the general atmosphere of the occasion.

Then this Christmas gift of mine will be all ready and the stage set for putting that gift to work on the first day of the New Year. Rush will not deprive me of what I ought to have this year, and I am going to have what counts in a big, fine way.

You might call this Christmas gift which I am making myself a series of Resolutions or a big dose of Auto-Suggestion. Call it what you will. It is what I have lacked and what I am going to have. I call it 1922 Policies.

The peculiar thing about it is that I can share this gift with you and still enjoy all of it, while you may be much richer. With my gift goes this assurance that your happiness and prosperity are up to you, for "1922 Will Reward the Workers, and Those Who Stick to the Job"—even as "1921 Richly Rewarded the Fighters."

The Platform of My Policies.

1. Because a man's success is in exact proportion to the Will Power which he exerts, I will cultivate my Will Power by doing the things I ought to do regardless of whether I always want to do them or not.

2. Because Suggestion is a powerful force which often causes action or lack of action, I shall no longer organize my activities according to public opinion. On the contrary, I shall, as never before, be the Master of my own Fate, in that I shall make continual suggestions to self as to what I want to do and as to what I want to become. Thus, I will rule my own destiny in place of being buffeted about by the Tides of Chance.

3. Because real satisfaction and happiness are the result of effort and achievement, I will seek satisfaction and happiness by doing everything which comes to my hand better than I have ever done it before.

4. Because Mind and Will Power are influenced by physical conditions, I shall seek to improve and to maintain my health. I shall eat wisely and temperately. I shall sleep enough. I shall exercise in the manner which will aid in keeping me limber mentally and physically.

5. Because this life is a preparatory school for a more important and more permanent course beyond, I shall strive to gain the true outlook as to Life and its privileges of Service and Preparation. In short, I shall strive as never before to learn to put First Things First.

6. Because I recognize that the hardships and anxieties of the past year are a blessing in disguise, I shall not whine or lament if the time of crucial testing is not quite over. I shall recognize the beneficial influence of overcoming obstacles. Neither a real soldier nor a world's champion feels any joy or credit in overcoming a puny pigmy. It is the doing of hard things which prepares us to do harder ones.

7. Because I have so much to learn, I shall read one sound business book each month of the New Year. I shall not hurry through it, nor choose it lightly. I shall select books written by men who because of their broad business experience have a worth while message. I shall read and reflect—and learn. I shall keep these books, marking and making friends of them, and my life will be richer in consequence.

8. Because time is limited and memory cannot compass everything, I shall do less desultory reading than in other days, and shall make a study of my business journals, reading more

leisurely, but prepared to make use of all helpful information and to profit by the experiences of others.

9. Because I shall not go this way again, I shall take more interest in my associates than I have done before; and I shall endeavor to be a little more thoughtful and considerate of those who are near and dear to me, not because it is my duty, but because I want to!

10. Because money is only a part of the pay which we get for what we do, I am going to live every hour of this year which I possibly can with the Blue Bird of Happiness singing in my heart. I shall be freer than in other years with my smiles of recognition, with the good cheer I shall offer, with the words of encouragement and inspiration which I will speak. I will endeavor to live with the serenity which makes for efficiency and to keep in sight the Glorious Vision of my MAN'S TASK.

This is my gift to myself, and I am getting things ready for this New Start. Already, I feel the urge of desire for the new year, and what it will bring me.

Perhaps enough of YOU will accept the gift to make a goodly company—a company which will carry the Spirit of Christmas into every day of the new year.

Wants Congressional "Blocs" Abolished.

A bill was introduced in Congress Dec. 21 by Representative Anson, of New York, to abolish combinations in the national legislative bodies other than majority and minority political parties. The bill would make illegal every "bloc," combination or agreement among members "based upon particular pursuits or geographical locations, for the purpose of controlling, restraining, regulating, hindering, delaying, defeating, or in any manner affecting legislation."

A penalty of \$5,000 would be provided for conviction of engaging in any of the prohibited combinations.

In defending the constitutionality of his measure, Mr. Anson pointed to the Sherman Antitrust Act, which prohibits combinations in restraint of trade, and said that he believes combinations in restraint of legislation to be inherently more dangerous to the country than combinations in restraint of trade.

THE REPORT submitted by James P. Goodrich, former governor of Indiana, who was sent to Russia as a special investigator of famine conditions by Herbert Hoover recommends that the United States furnish 15,000,000 to 20,000,000 bus. of corn for food and 4,000,000 to 5,000,000 bus. of seed wheat. He said that 25,000,000 Russian farmers are facing famine and that many will starve unless help is extended soon. It is his opinion, also, that if they are furnished food to next July and seed to plant their crops they will be able to take care of themselves hereafter.



Hopper Bottom Box Cars of Canadian Railway.

It has long been the hope of terminal grain elevator operators and railroad men giving special attention to the handling of grain shipments that there would eventually be perfected a box car that can be made to discharge its contents without the necessity for removing the grain doors. A car that would accomplish this purpose satisfactorily would mean a material saving in grain door lumber, and it would assist in speeding up the operation of unloading so that this portion of the work could be done more economically, and the movement of grain from cars to bins would be expedited.

The Canadian Pacific Railway has placed in service in recent months about 3,500 cars equipped with hopped outlets in floor before each side door as shown in the engravings reproduced herewith. These cars are of 120,000 lbs. capacity, and are of the type known as steel frame single sheathed. Lining pockets in which grain may catch are thus eliminated, and the ends are of corrugated steel, in two pieces. The length of the cars, inside, is 40½ ft., and over buffers, 42 ft. 1½ in.

The appearance of the hopper bottom, inside the car is shown in Figs. A and B. Fig. A shows the hopper closed, while in B it is open. With the hopper closed, the car is suitable for hauling any commodity other than grain. An exterior view of the dumping

arrangement is shown in Fig. C.

When a car is to be loaded with grain, the floor members which cover the hopper are raised as in Fig. B. These floor members now become the first or lower section of the grain doors. If required, additional doors are placed above them in the usual manner. The hopper itself is closed by means of a hinged door that can only be opened from the outside by operating a lever controlling the locking rod and lugs. This lever is sealed in its closed position to guard against pilferage.

On arrival of the car at destination, it is spotted over the receiving sink at the elevator, the seal is broken, and the swinging closure gate drops to the position shown in C, discharging the grain outside the track. Inside the car, the grain is drawn to the hopper by means of car shovels as in the case of cars of ordinary type. If hopper on each side will discharge into the receiving sink, then both hoppers are opened, further lessening the time required for unloading a car.

Mr. M. McKay, sup't of terminal elevators for the United Grain Growers, Ltd., of Ft. William, Ont., has had considerable experience in unloading the new cars, and summarizes the results obtained by saying they save an average of 5 minutes per car in unloading over the time required for regular flat bottom cars. No reports have come to him regarding leaks thru the hoppers.

Inspectors May Not Designate "New" Crop.

On Dec. 9 the Board of Review of the grain supervision service issued a memorandum to supervisors requiring that statements appearing on inspection certificates must be statements of fact within the knowledge of the inspector or supervisor over whose signature the statement appears. This memorandum supplemented and repeated one formerly issued on July 14 which dealt principally with the use of the term "fresh shelled corn."

It has been the opinion of the supervision service that, altho the term "fresh shelled corn" has been used by the trade in making contracts there has never been evolved a definite meaning of the term on the part of grain inspection dep'ts, the Dep't of Agriculture or any branch of the grain trade or recognized grain authorities. The term "fresh shelled," therefore, does not admit of definite interpretation and it is not within the province of the inspector to know whether a given lot of corn is or is not "fresh shelled."

The Board of Review ruled that inspectors may not place the designation "fresh shelled" on official inspection certificates. The memorandum of Dec. 9 further states that the Board considers such terms as "new," "new corn," "crop 1921," "old," "old corn," "old crop," "dried," "dried corn," "kiln dried," or any other term which is equally impossible of accurate determination in the same category with "fresh shelled."

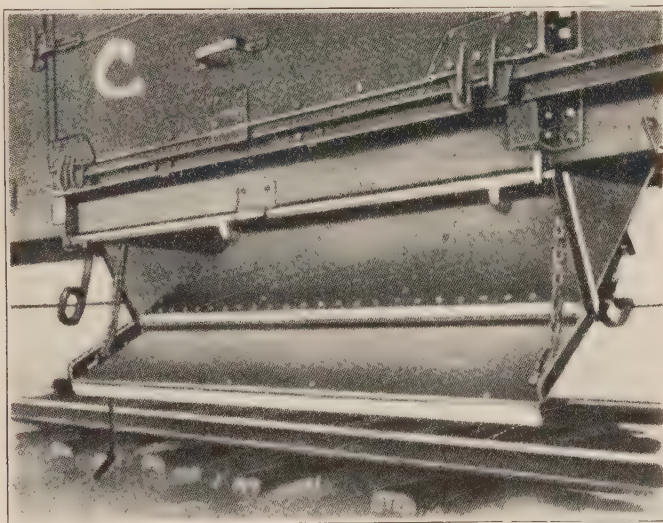
The ruling applies with equal force to wheat, corn and oats and will apply to other grains for which standards may be hereafter established.

There is no disposition to interfere with existing contracts in markets where such terms are still requested on certificates, but it will be insisted that the instructions of the Board be complied with after Jan. 1.

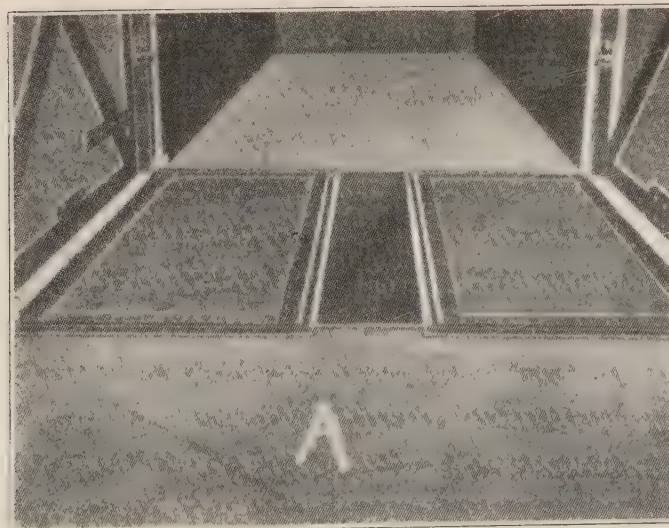
The meaning of the ruling is to prohibit inspectors placing a designation on certificates that they are not in position to know to be a matter of fact.

BY PRODUCING 107 bus. of corn on one acre, Verne Coon, of Faribault, Minn., won the state championship as the single acre corn grower. He is 14 years of age. The 5-acre contest was won by Oran Aughenbaugh, New Richland, Minn., whose average yield was 85 bus.

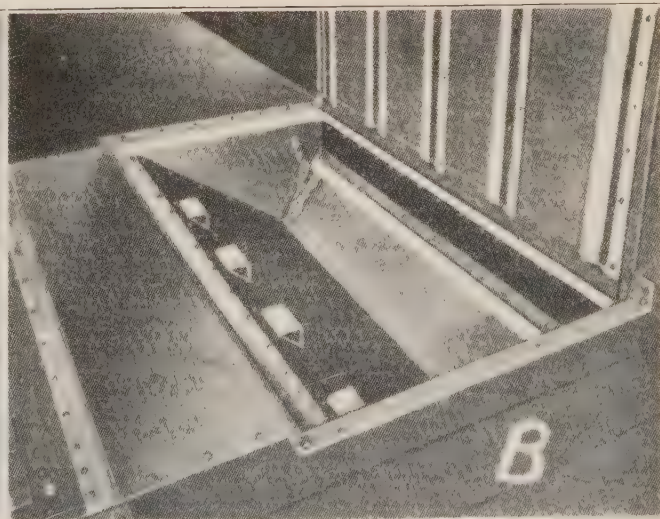
MARKETING conditions will be discussed at a meeting to be held in Topeka, Kan., Jan. 10 by the Kansas State Board of Agriculture. Individuals, companies and organizations interested in marketing are asked to participate in the conference.



Exterior View of Hopper of New Cars of Canadian Pacific Railway. Hopper Open to Discharge Grain.



A—Hoppers Closed for Hauling Ordinary Merchandise.



B—Hoppers Open Ready for Grain Loading.

Dumping Hoppers of New Cars of Canadian Pacific Railway.

An Oklahoma Studded Elevator.

The new 25,000-bu. studded elevator recently completed by the Light Grain & Milling Co. at Guymon, Okla., is shown in the engravings herewith. It is the most recent addition to the grain handling facilities of that section which only a few short years ago was known in our school geographies as "No Man's Land." Even the ground upon which the elevator stands was trackless prairie within the memory of persons barely old enuf to vote; and this elevator marks another stage in the progress of men toward turning the Wild West into farms for the production of food for the world.

The elevator is of short studded construction, covered on the outside with rock face metal siding. This material is used for the outer siding of the office also, and both buildings have roofs of galvanized shingles. The foundation is of reinforced concrete. The pit is 8 ft. by 17 ft., and 22 ft. deep, 14 ft. deeper than the points of the main bins, whose floors are of concrete.

Three of the eight bins in the elevator are above the driveway and five in the main house. Of the latter, four extend to the concrete floor which slopes to the top of the pit walls, while the other is cut off to give a passageway between the driveway and the door on the track side of the house. The engine room, which is not shown in the photograph, is of reinforced concrete. It houses the 15-h.p. F-M Type "Z" Engine, which is belted to the line shaft that passes thru one of the bins. This shaft is fitted with a friction clutch. Power is communicated to the countershaft in the cupola by a rope drive; and the head shaft is operated from this countershaft by means of sprockets and a chain. Two dump sinks are provided, and there is provision for dumping trucks as well as wagons. The 1,800-bu. per hour leg is fitted with a nonchokable boot.

The cupola is divided into two portions by means of solid floors. The upper portion is utilized for the distributor and the lower for the 5-bu. Richardson Automatic Scale which discharges into a spout made of 8-in. well casing, 34 ft. long, that has loaded every car without scooping. The cupola itself is quite roomy and gives easy access to all of the machinery. This means that it will be easy to care for the plant. A manlift is provided for travel between workfloor and cupola, thus further minimizing the operator's labor. The photograph shows that the cupola is plentifully supplied with windows, and in a section where the wind knows how to blow as it does in Texas County, Oklahoma, there should never be an accumulation of dust in the upper part of this house.

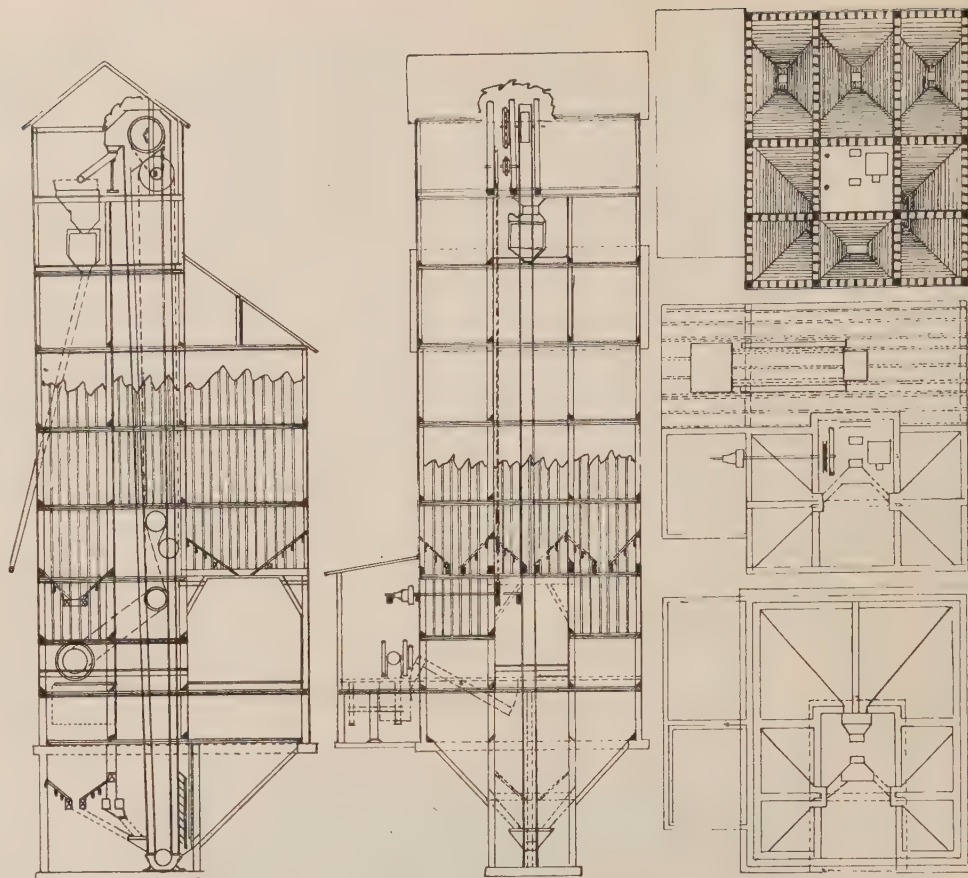
The office building is divided into two rooms and has a 10-ton Fairbanks Truck Scale with type registering beam.

The construction and arrangement of the several portions of the plant minimize the fire hazard and this has been rewarded by the insurance companies in quoting a reduced rate for protection. In the short time the elevator has been in operation it has proven satisfactory, and in one day of 11 hours it loaded 10 cars.

The elevator was designed and built by the W. H. Wenholz Construction Co.

COTTON production in the United States for the season 1921-22 will amount to 3,989,403,000 pounds, equivalent to 8,340,000 bales of 500 lbs. each, not including linters, it is estimated by the Crop Reporting Board of the Bureau of Markets and Crop Estimates. This is compared with production of 13,439,603 bales last year.

THE WHEAT POOL com'tee of the Canadian Council of Agriculture submitted its report Dec. 22. The report states that the com'tee has found it impossible to evolve a scheme for the establishment of a wheat pool on the lines laid down by the Council. The com'tee was appointed in October, 1920, and has held 5 meetings.



Bin Plan and Sectional Elevation of 25,000-bu. Studded Elevator of Light Grain & Milling Co., at Guymon, Okla.

SWEDEN will import between 100,000 and 124,000 tons of American hard wheat and Manitoba wheat during the present season. About 60,000 tons of this has been received, and the remainder must be imported before the next harvest. American wheat has been in good demand, owing to competition in bread making between the bakers, and it has brought about 10 crowns per 100 kilos more than native grain, which remained unsold at 24 crowns per 100 kilos (\$1.50 per bu.). Due to

this fact, the government has ordered that only 30% of American wheat be used, even tho the bread be of inferior quality.

AN INVESTIGATION of retail prices of food, fuel, shoes and clothing is to be conducted by the Dep't of Justice. Agents are to report retail prices on the various commodities, and at the same time are to give information on wholesale prices of wheat, corn, beef, and meats of all kinds prepared and on the hoof to permit a comparison of the figures:



25,000-bu. Studded Elevator of Light Grain & Milling Co. at Guymon, Okla.

The Terminal Elevator at Sydney, N. S. W.



Traveling Gantries of Sydney's Terminal Elevator Transfer Grain From Conveyor Galleries to Ocean Steamers.

Sydney, the oldest city in Australia and occupying a beautiful site, now has added another distinction, that of possessing the only bulk grain export elevator in that continent.

That Sydney, the second largest city in Australia, should be the leader in adopting the modern way of handling grain follows from the advanced development of agriculture in the state of New South Wales. While some other states in Australia contain vast expanses of desert, more than nine-tenths of the area of New South Wales is under cultivation, producing wheat, corn, oats, rye, barley and the crops that are suitable to such a climate as that of California.

New South Wales and Victoria together will have an exportable surplus of 45,000,000 bus. from the crop of wheat now being harvested, according to Broomhall, and a great part of this will pass thru the new elevator at Sydney. The production of wheat in New South Wales was 37,705,000 bus. in 1918, 36,598,000 in 1917, 68,869,000 in 1916, 13,235,000 in 1915 and 39,219,000 bus. in 1914. In 1919 New South Wales produced 18,325,000 bus.; Victoria, 25,240,000; South Australia, 22,937,000,

and Western Australia, 8,845,000 bus. of wheat; and for 1920 New South Wales produced 4,297,000; Victoria, 14,858,000; South Australia, 14,947,000, and Western Australia, 12,270,000 bus. As it is too costly to transport wheat great distances by rail to utilize the improved facilities at Sydney the construction of bulk-handling terminal elevators at the seaports of Victoria, South Australia and Western Australia would afford the wheat of those states a nearby outlet.

Wheat is always the leading cereal crop, the acreage devoted to corn, oats and barley fluctuating from year to year. When New South Wales made its record production of wheat in 1915-16, it produced 3,773,000 bus. of corn; 1,344,000 bus. of oats, and 114,846 bus. of barley.

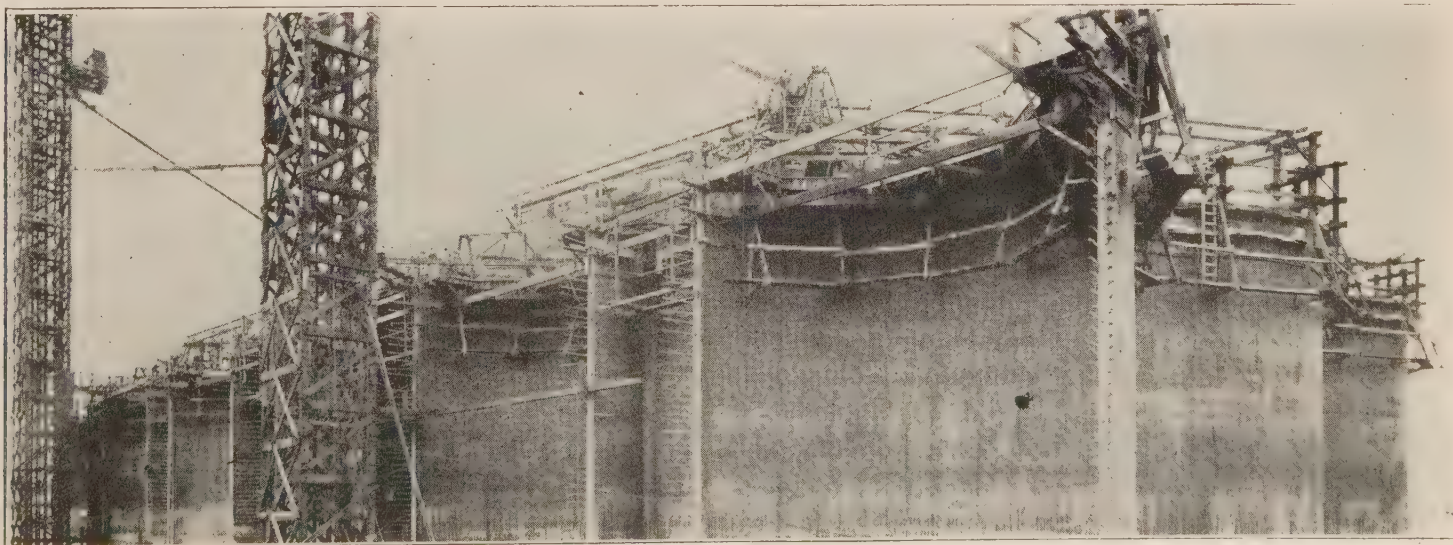
Exports of wheat and flour combined from the whole of Australia from Jan. 1, 1921, to Nov. 23, have been the equivalent of 103,160,000 bus. of wheat, against 48,288,000 for the corresponding period of 1920.

The 4,198 miles of railroad in New South Wales are inadequately equipped with box cars, the government, which operates the lines,

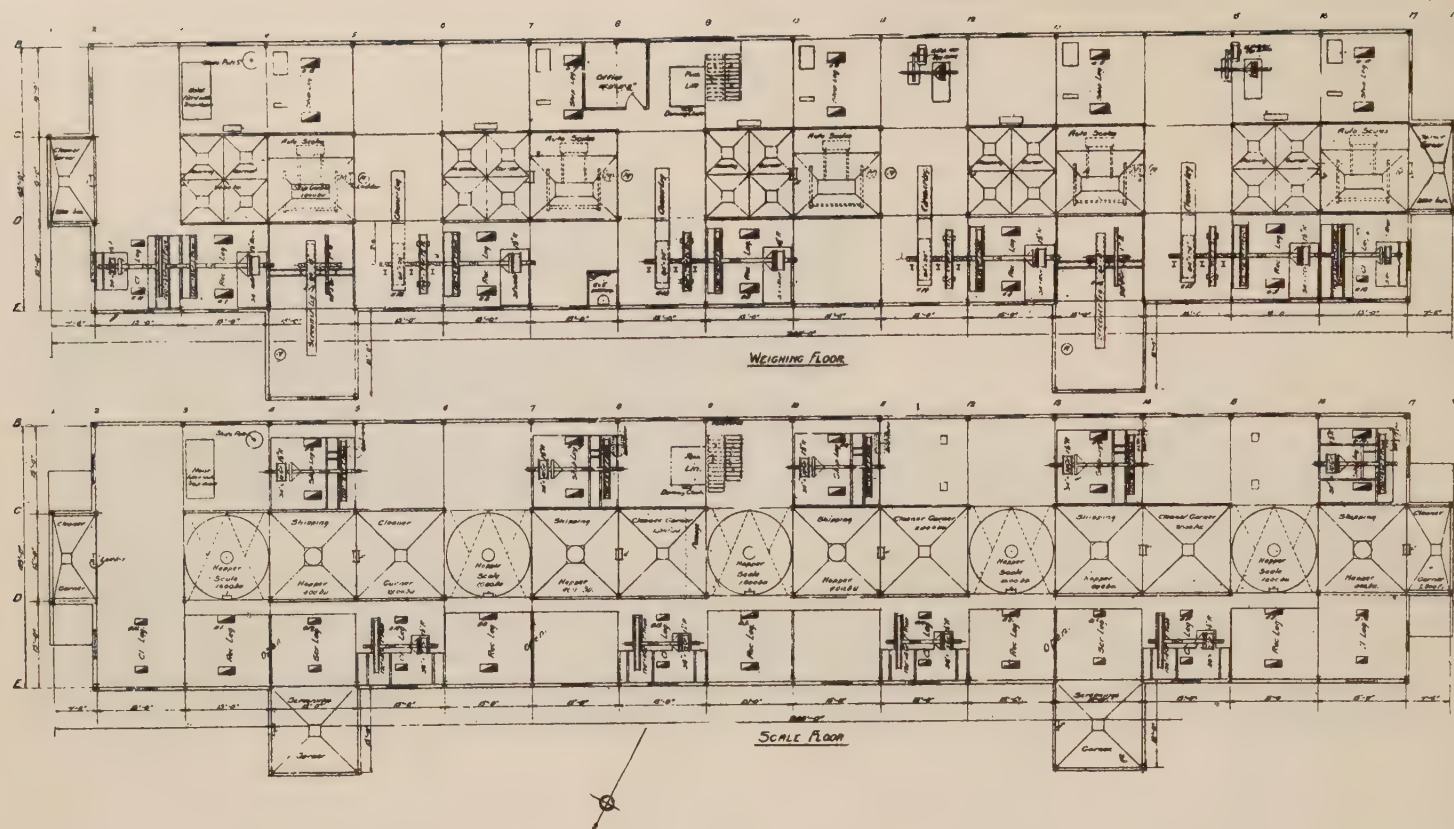
having but a few hundred cars suitable for bulk grain loading, as they were not necessary under the sack handling system, but will now be provided.

AN IDEAL SITE for the bulk handling terminal elevator was found at Glebe Island in the land-locked Darling Harbor, which Sydney fortunately possesses. The Island was formerly occupied by packing houses and a freestone quarry. The government bought the quarry and removed the sandstone mountains. The engraving herewith shows how the solid rock was removed from the site of the elevator. The work of excavating for the foundations was done by the Sydney Harbor Trust. Under an arrangement with the state governments the federal commonwealth of Australia has borne the initial expense of nearly \$15,000,000 for the interior and terminal elevators involved in the great bulk handling plan.

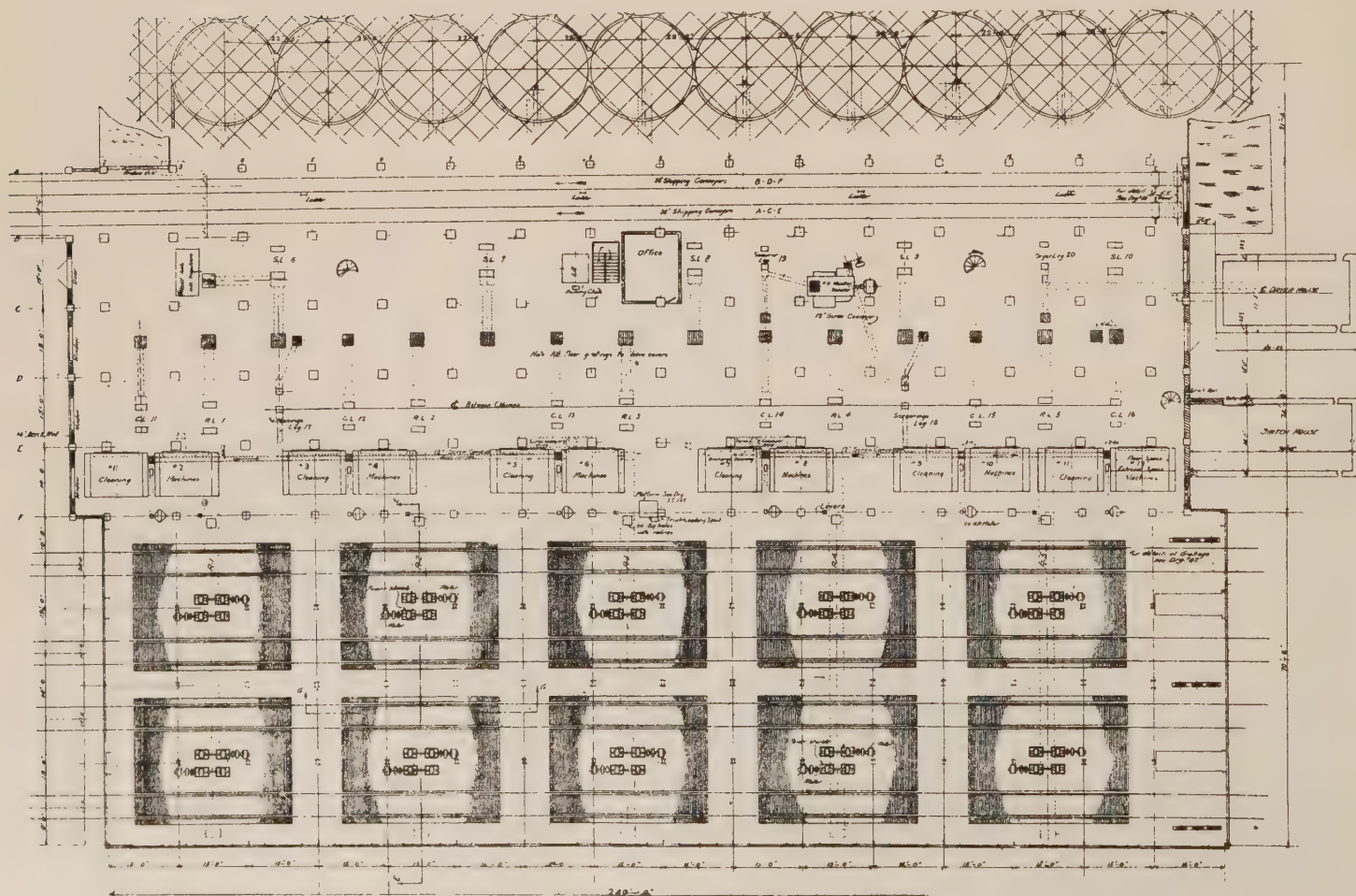
Loading of the ocean vessels with general cargo at the same time that the grain is going aboard was contemplated by the Harbor authorities, and to do this ample berthing accommodation was provided alongside the elevator site, with 35 ft. depth of water. One



First Section Bins, Sydney, N. S. W., Terminal Elevator, Showing Lateral Reinforcing Protruding from Edge of Bin Wall. [See pages 858 to 862.]



Plan of Scale and Top Floors, Sydney, N. S. W., Terminal Elevator.

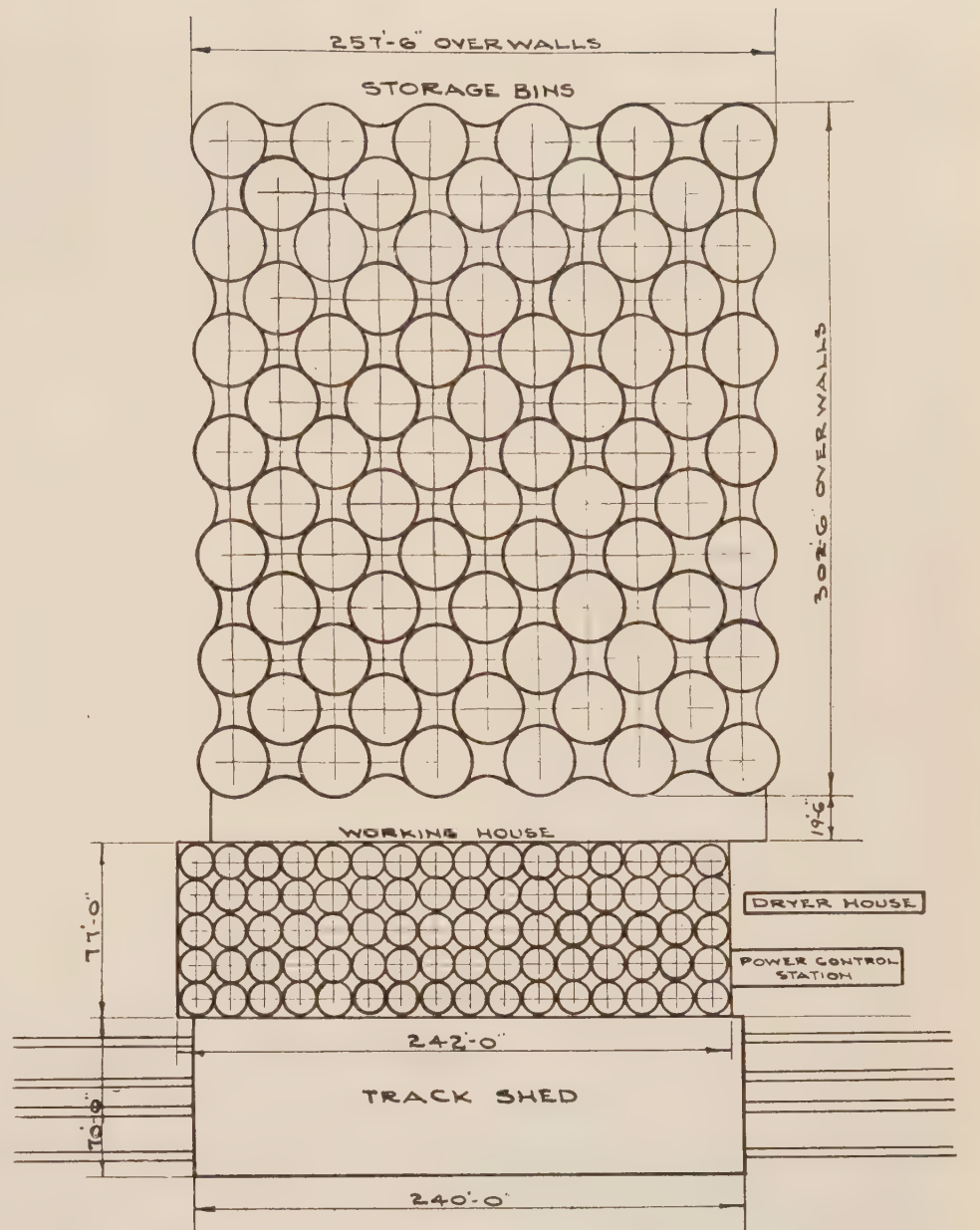
Plan of Ground Floor of Working House and Track Shed, Sydney, N. S. W., Terminal Elevator.
[See pages 857 to 862.]

of the wharves is 2,600 ft., or a half mile in length, and there are three cargo sheds, 381, 525 and 459 ft. long, each 132 ft. wide. Grain is loaded into ocean steamers by means of long conveyor galleries supplemented by four traveling gantries. The four gantries travel the full length of the dock, receive the grain from the conveyors and drop it into the holds of vessels. Shipment can be made at the maximum rate of 60,000 bus. per hour and the stream of wheat can be split into four, thus feeding to four different vessels simultaneously.

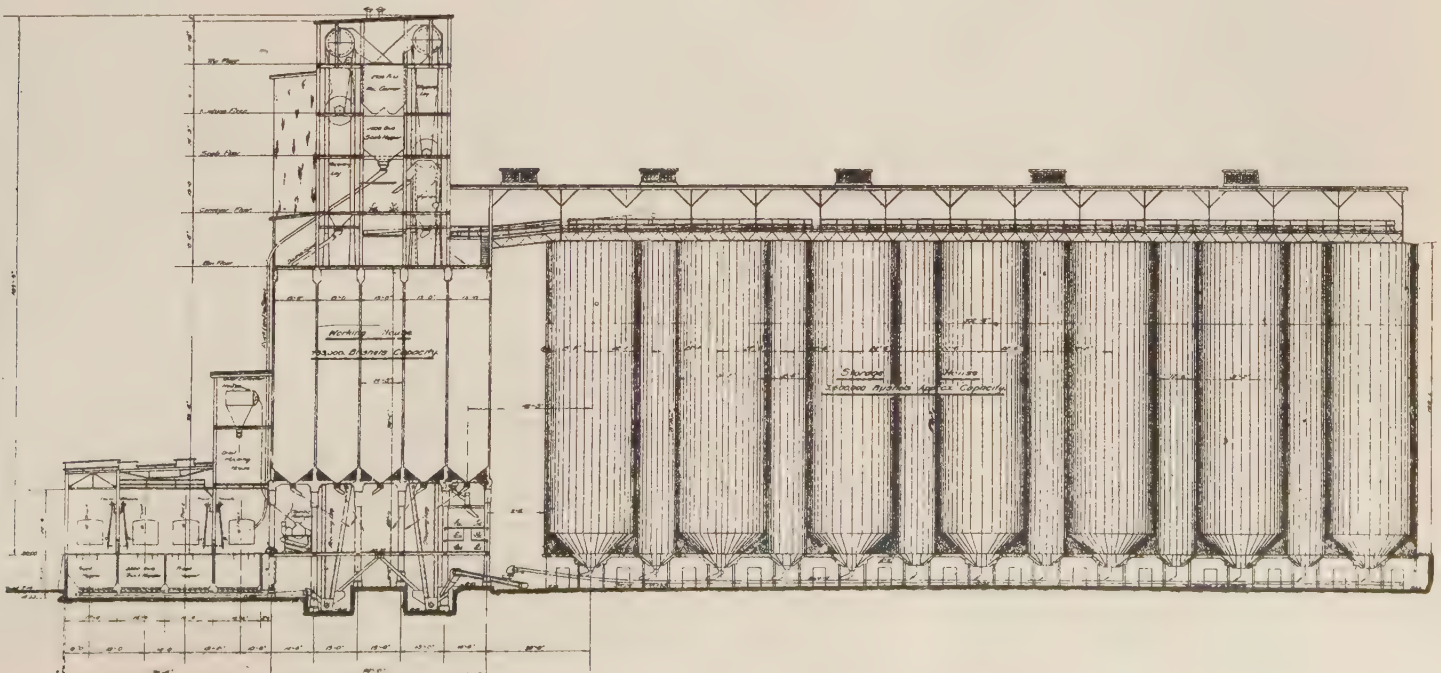
The car unloading capacity of 80,000 bus. per hour at the 20 car receiving sinks may seem to be excessive, as this capacity would export the entire surplus crop of New South Wales in 30 days, working only 10 hours a day; but the large capacity provides for any increase in the grain crops of the country and assures that there will never be any delay in releasing loaded cars and sending them back to the harvest fields to be reloaded. This large unloading capacity may be worth its cost as long as the available box car equipment is limited.

The plan comprises a storage annex of 5,723,200 bus. capacity in 143 bins, a working house of 786,000 bus. storage capacity in 139 bins, a track shed containing four tracks, a Hess drier, steam plant for drier, electric power control station, gallery to wharf and four traveling gantries.

STORAGE BINS. The storage house is 257 ft. 6 ins. by 302 ft. 6 in., containing 72 cylindrical bins and 71 interspace bins. The round bins are 31 ft. 2 ins. inside diameter, with walls 8 ins. thick, and 108 ft. high. The bins are of reinforced concrete, and the galleries above the bins are of structural steel covered with galvanized iron. Center to center the distance between bins in the same row is 44 ft. 10 ins. Next to the working house is a row of 6 round bins and 5 interspace bins. Parallel to the round bins and in staggered relationship, centered 22 ft. 5 ins. from the centers of the first row is the second row of round bins, only 5 in number, but having an additional interspace bin, or 6, the result being that the storage house has interspace bins on the outside, while the working house has none on the outside. The effect of the staggered arrangement is to give 15 additional interspace bins in about the same ground space. The walls of the outside split bins were made thicker than the other walls, and the reinforcing is locked with a special device at the vertical joints in outside walls of the storage bins. The bonding is strengthened by binding the reinforcing in a special manner and increasing



Plan of Reinforced Concrete Working House and Storage Bins, Sydney, N. S. W., Terminal Elevator.



General Cross Sectional Plan, Sydney, N. S. W., Terminal Elevator.
[See pages 857 to 862.]

the thickness of the walls so as to form pilasters where the walls join.

Over the bins are six conveyor belts 36 ins. wide, and below are 11 similarly sized belts leading to 5 shipping legs. Instead of ladders in the storage bins the annex has 2 hoisting machines with tackle and chair.

WORKING HOUSE is 242 by 77 ft., and its track shed 240 by 70 ft. 6 ins. The bins are spaced 15 ft. centers, with walls 7 ins. thick and 74 ft. deep. The cupola is of structural steel covered with corrugated galvanized iron and the track shed of the same material.

The equipment of the working house comprises 20 elevator legs, of which 5 are receiving legs and 5 shipping legs, with 8x8x15 buckets and a 96-in. head pulley. Six legs with 7x7x22 buckets and 84-inch head pulleys elevate grain from the ground floor cleaners. One leg with 6x6x12 buckets elevates grain discharged from the scourer on ground floor for distribution by two telescoping spouts having a radius of 18 bins, or to one of the 36-inch transfer belts or to one of the belts leading out over the storage bins. The scourings from this machine go to a 12-inch screw conveyor. One leg with similar buckets and head pulley takes grain coming in over 20-inch conveyor belt from drier, the spout from the elevator head distributing thru two telescope spouts having a radius of 18 bins. Two legs with 6x6x12 buckets are provided to handle screenings, taking their feed from a 12-inch screw conveyor.

All of the receiving and shipping legs may be used for shipping. The scale hoppers may discharge to storage house belt, or to transfer belt or to spouts to shipping bins. One receiving scale is arranged to spout to car-loading spout. One shipping scale also is arranged to spout to car-loading spout. The working house contains two reversible 36-inch longitudinal belts, 27 telescope distributing spouts

on the bin floor, 5 36-inch belts to storage bins and 10 36-inch conveyor belts coming from the storage bins. The elevator leg belts are of rubber, 7-ply for the receiving and shipping, 6-ply for the cleaner legs, 5-ply for the screenings, scourer and drier legs, and the conveyor belts are 4-ply. The buckets on the receiving and shipping legs are in two rows, staggered, of the Buffalo pattern. The rope drives are of 4-strand, tallow laid, pure manila on the continuous American system, other drives are silent chain. All bearings are ring-oiling and dustproof. All elevator boots are of cast iron and steel, the elevator casings of No. 12 steel. All spouts are the same weight of steel.

The metal window frames and sash are glazed with ribbed wire glass. In all working house bins are ladders leading to cast-iron manhole frame and cover. Spiral stairs near center of building extend from basement to top floor. Push buttons at the various landings control an automatic electric passenger lift, and there are also two Humphrey man elevators and four polished sliding poles of 2½ inch brass pipe, 2 from the weighing to conveyor floor and 2 from conveyor floor to bin floor. A dummy elevator runs between ground floor and weighing floor in cupola, on which floor is an office built of wall tile for the weighmen. The elevator foreman has a similar office on the ground floor.

The two transfer belts each have a tripper. A tripper is provided for each of the five storage house belts, a tripper for each of the 6 wharf gallery belts, while 4 more are contemplated in the future.

The receiving legs spout to 2,500-bu. garners above the five hopper scales of 1,600 bus. capacity each. The shipping legs spout to 1,000-bu. garners over 5 Fairbanks Automatic Scales weighing four tons of wheat at a draft or 16,000 bus. per hour. The entire outside row of

bins and resultant interspace bins are shipping bins with a total capacity of 170,000 bus. spouting to shipping conveyor belts having a maximum capacity of 60,000 bus. per hour.

THE CLEANING MACHINERY includes 12 compound shake warehouse separators in 6 batteries of 2 machines each, and one scourer to remove smut as well as 2 screenings separators. Disposition of dust by bulk loading or burning is provided for. Space is provided for bagging equipment and conveyor. Two of the cleaner legs discharge thru a spout on the top floor, switching to one of the main receiving scale garners or to special cleaner garners one at each end of the working house, the other four cleaning legs going to the weighing floor. The two screenings separators on the conveyor floor receive from garners and discharge thru an independent spout for each separation to the adjacent bins in the working house. Overflow from screenings garner will go to special bins discharging to screenings legs.

THE DUST COLLECTING SYSTEM consists of two steel plate exhaust fans driven by separate motors. An exhaust fan on the distributing floor is connected to separate dust collectors piped to each of the screenings separators in the cupola. To this fan are connected 16 floor sweeps, 4 to each floor; and this fan discharges to a separate dust collector, connecting to the fan on the main floor. On the ground floor all of the cleaning machines are piped to separate dust collectors placed in a dust house located above the track shed. The air exhaust from these collectors is piped to an exhaust fan on the ground floor. Six sweeps are on the ground floor and six sweeps in the basement of the working house, connected to the ground floor fan. The inlet of the fan contains a trap to take out all grain. The ground floor fan discharges to dust collectors above the dust incinerator or to bulk dust tank.



Cutting Away Solid Rock to Make Room for Sydney, N. S. W., Terminal Elevator.
[See pages 857 to 862.]



Conveyor Gallery Above Open Bins of Reinforced Concrete Terminal Elevator at Sydney, N. S. W.

To load cars with dust in bulk the bulk dust tank is provided with an agitator facilitating the flow of dust into a blower blowing the dust into the cars. When there is no market for the dust it is burned.

THE NO. 6 HESS DRIER has a capacity of 500 to 750 bus. per hour and is housed in a brick building 16x79 ft., with a boiler plant in connection to furnish steam at 60 lbs. pressure from a boiler 72 ins. by 16 ft. The drier is served by two spouts running from 2 bins at end of working house, having a capacity of 2,300 bus. each, and may be filled by spouting from the receiving or shipping legs or from any other leg by means of the longitudinal transfer conveyor. A 20-inch belt conveyor carries grain from drier to drier leg in the working house.

THE TRACK SHED contains four tracks, under which are 20 car receiving sinks having hoppers with interlocking valve control to prevent mixing of grain. Each hopper has a capacity of 2,500 bus., and the total receiving capacity is easily 30 cars per hour. Beneath each line of 4 hoppers is a 36-inch concentrated belt conveyor to carry grain to the boots of the receiving legs. Three double drum car pullers are provided to handle cars in either direction on any of the four tracks. Five power shovels aid in unloading. One car loading spout is provided, to load from both receiving and shipping scale hoppers.

The telephone system operates with central energy, has a full metallic circuit, with all wires and cable in iron pipes. The 25 instruments are located in the track shed, 2; working house, 6; drier, 1; storage, 6; switchboard house, 1; shipping conveyor drive towers, 4; shipping gantries, 4; superintendent's office, 1. In the shipping gallery on the wharf

provision is made for jacks and plugs so that a portable telephone may be used at any of the shipping spouts; or connection made by armored flexible cord to the telephone instruments on the working floor of the gantries.

The signal system for the unloading tracks includes a loud ringing bell of different tone for each track. At each track hopper is a push button, with an annunciator at the car puller. Signals are provided for all elevator legs and conveyors, and the wiring is the same as that for the electric lighting system, which has 1,070 lamp outlets.

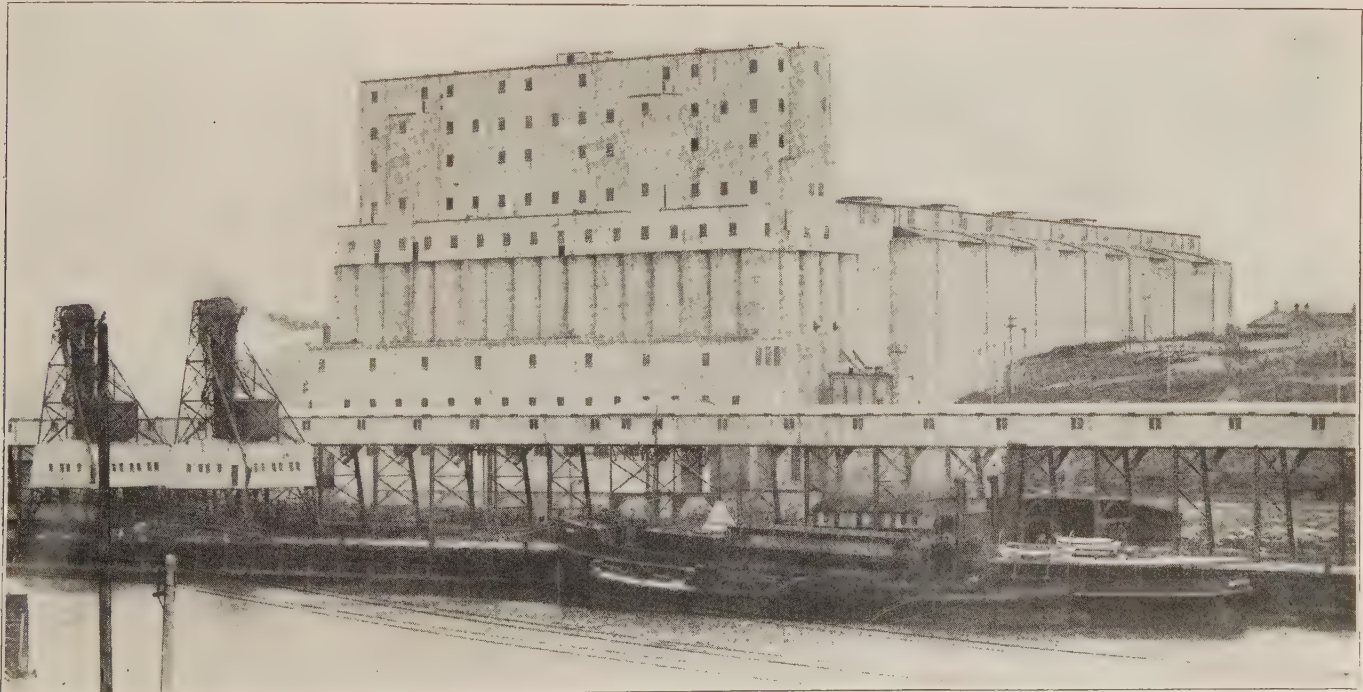
THE POWER CONTROL STATION is a brick building, 74 ft. 8 ins. by 16 ft. 6 ins., where current received from the White Bay generating house is transformed from 3-phase, 25-cycle, 6,600-volt, to 440 volts pressure. Each of the three transformers has a capacity of 1,050 K. V. A. and is oil-cooled. A small transformer of 35 K. V. A. supplies lighting current. Two switchboards are provided, one for alternating and one for direct current. To supply current for battery charging and the lighting system the station contains on the ground floor a 30-K.W., direct coupled motor generator set, 125-volt direct current generator and 440-volt, 3-phase alternating current motor. A storage battery is provided as a part of the switchboard equipment for the operation of the solenoid switches and the signal and telephone system, consisting of 50 cells of the lead oxide type.

The total connected load of the elevator amounts to 4,000 h.p., and is divided into 12 circuits, each having a nominal capacity of 500 h.p. All motor wiring is done in rigid iron conduit. The motors are of the squirrel cage type. The largest motors are the ten operating the receiving and shipping legs, of 100 h.p. each, driving by rope. One 60-h.p. motor

drives the scourer direct. Two 60-h.p. motors drive the high cleaner legs by rope. In the towers of the belt conveyor system are many motors driving by chain. One tower has four motors of 50 h.p. each; another, 4 motors of 40 h.p.; and three towers have two motors each, of 50 h.p. Each of the 4 traveling gantries has a 40-h.p. motor, driven by chain. Six of the same size drive by chain the over-storage belt conveyors, while 11 of 35 h. p. drive the under storage conveyors. Motors of 25 h.p. are used for the 2 cupola transfer belts and for the drier fan. Six motors of 20 h.p. each drive the cleaning machines by belt; 2 of 15 h.p. drive the screenings machines; 5 of 15 h.p. drive the screenings legs by belt, the scourer and drier legs by chain and the sweeper fan direct. The track hopper belts are chain driven by 5 10-h.p. motors, and 2 motors of the same size drive the passenger lift and hoist directly. The power shovels are direct driven by 20 motors of 7½ h.p.; the basement short belts are chain driven by 6 7½ h.p. motors. The boiler draft fan is belt-driven by a 5-h.p. motor. Two 3-h.p. motors belt drive the Humphrey Elevators; and 4 of the same size chain drive the screw conveyors.

SHIPPING GALLERY. Four 36-inch conveyor belts run the entire length of the working house to receive grain from the shipping bins and deliver to a tower. From this tower belt conveyors are carried in a gallery over the railroad tracks to the face of the wharf galleries in a second tower. From the second tower two conveyors run 1,095 feet east along the wharf to third and fourth towers; and 423 feet west along the wharf to the fifth and sixth towers.

The four self-propelling traveling gantries run on rails parallel to the wharf face, to receive grain from the wharf galleries and ele-



The 6,509,600-bu. Reinforced Concrete Terminal Elevator at Sydney, N. S. W.
[See pages 857 to 862.]

vate it to sufficient height to discharge by gravity to the largest vessels.

Each gantry has an inclined elevator leg with two rows of 8x8x18 buckets on 38-inch, 7-ply elevator belts. A switch valve at the delivery point of each elevator leg diverts the grain from the ship loading spout by a return spout to a garner above the elevator boot having a capacity of 800 bus., to receive grain for 3 minutes after the signal may have been given to stop shipping.

From the head of the elevator grain goes to boats thru a telescopic dock spout suspended from the gantry top and controlled by a boom, the spout having a total length of 60 ft. On the working floor are two hoisting winches, one regulating the suspension of the spout from the boom and the other handling the outer sleeve of the spout. The gantries are built of structural steel, with floors of reinforced concrete and sides and roof of galvanized iron.

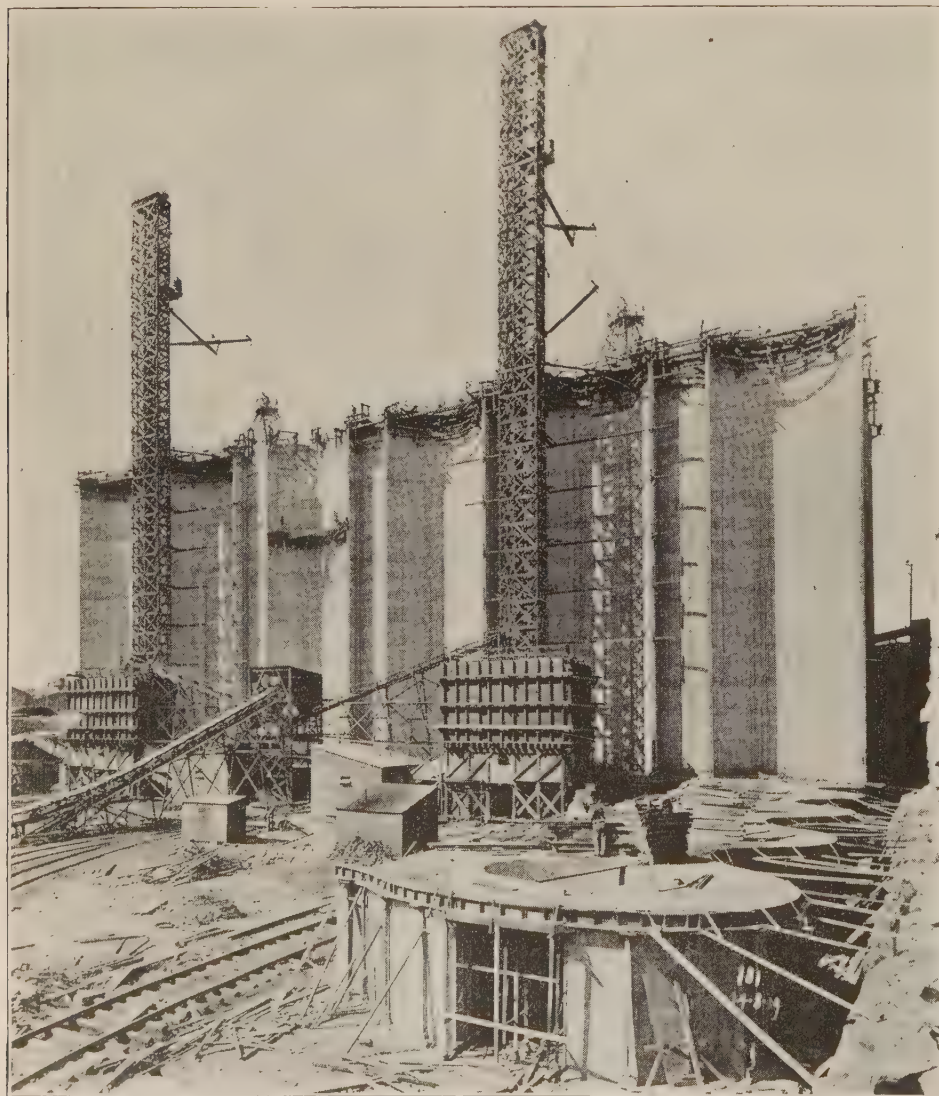
The plans and specifications for the entire plant were prepared by the John S. Metcalf Co. The contract for construction was let to H. Teesdale Smith, and the work was done under the efficient direction of A. W. Menkins as contractor's superintendent. This was the first moving form grain elevator building job in Australia and as none of the 500 men employed had had any experience with it, Mr. Menkins had to train his men. The first work was done in November, 1918, when a temporary siding was laid for the storage of materials. Rock excavation began some time early in March, 1919, and all the contractor's plant was installed in April, 1919, and work started on two concreting towers. On account

of the high cost of wood the concreting was done in sections. The concreting of the piers began in May, 1919, and of the bin walls, July 21. By Aug. 9, or 38.83 10-hour shifts, the first section had been poured to the full height of 108 feet. A record in pouring concrete was made in constructing the third section of the bins, when during one day of 24 hours the bin walls were raised 12 ft. 11 ins.

The moving of the concreting towers back successively for each section was an unusual feat. The rock foundation made it possible to use the same two towers in four positions. The storage annex was poured from three positions, and the working house from the fourth. In the tanks alone 40,000 cubic yards of concrete was required. The towers were 210 ft. high, but were built complete on the ground and raised by winches and railroad locomotives. The towers and their sand and gravel bins were moved on housemovers' rollers.

The terminal elevator will be well supported by a system of interior country elevators under construction by the government at 72 stations, each of 50,000 to 600,000 bus. capacity, the total country storage being 15,450,000 bus.

LOANS for agricultural purposes totaling \$9,035,740 were approved by the War Finance Corporation during the week ended Dec. 17. The report submitted to Congress showing the work of the Corporation up to Nov. 30 reported advances of \$82,000,000 for live stock and agricultural purposes. Of these \$16,000,000 were on grain; \$13,000,000 on live stock; \$22,000,000 on cotton, and \$34,000,000 for general agricultural purposes.



Having Completed First Section of Bins, Mixers and Towers Were Pulled Back and Started Pouring Concrete for Second Sections, Sydney, N. S. W., Elevator.
[See pages 857 to 861.]

Changes in Rates

As shown by tariffs recently filed with the Interstate Commerce Com'n the carriers have made the following changes in rates:

C. & E. I. in Sup. 4 further suspends 8625- until Jan. 31 and continues in effect 8625- Effective Nov. 27.

Western Trunk Lines in Sup. 9 to 1-P names rules, regulations and exceptions to classifications, including minimum weights on grain, effective Jan. 15.

C., B. & Q. in Sup. 30 to 3457-H, in connection with P. & I., Q. O. & K. C., R. P., L. & N. and T. & N., names rules and regulations, including reconsigning, stopping in transit, etc., effective Jan. 10 on interstate traffic and Dec. 15 on Mo. intrastate traffic.

C., B. & Q. in Sup. 2 to 3700-E, in connection with Q. O. & K. C. and T. & N., names rates on classes and commodities, including grain between interior stations in Iowa and Missouri exclusive of traffic to or from points on Mississippi River or Missouri River Junctions, effective Jan. 10.

L. A. Lowrey, Agt., in 20-L names local and joint terminal charges, rules and regulations, from or to points within the Chicago District on outbound and inbound traffic, also rules governing intermediate service on traffic passing thru, and cancels 20-K, effective Jan. 1. Sup. 1 to 20-L (Sup. 14 to 20-K) becomes effective Jan. 5.

C. & A. in Sup. 4 to 1596-F further postpones until Jan. 31, 1922, the effective date of 1596-F naming rates on grain and grain products from stations on its lines and C. & I. M. and C. & N. W., also from Louisiana, Mo., to Memphis, New Orleans, Helena, and points in Ala., Fla., La., Miss., and Tenn., also to Key West, Fla., Mobile, Ala., New Orleans, La., Pensacola, Fla., Port Chalmette, La., and Westwego, La., for export.

C., B. & Q. in Sup 5 to 4000-E names commodity rates on grain, grain products and seeds, c. l. and l. c. l., between Chicago, Peoria, Ill., St. Louis, Mo., Minneapolis and St. Paul, Minn., also export rates to Chicago and Peoria, and stations in Iowa and Missouri, except Mo. River Crossings; also from stations in Iowa and Missouri, except Mo. River Crossings, to Metropolis, Cairo, Ill., Evansville, Ind., and Key West, Fla., effective Jan. 10.

C., B. & Q. in 1362-M cancels 1362-L and names commodity rates on grain, grain products and seeds, c. l., between St. Paul, Minneapolis, Duluth, Stillwater, Winona, Minn., and La Crosse, Wis., etc., and stations in Ill., Ind., Ky., West Bank Mississippi River Points (Dubuque, Ia., to St. Louis, Mo., inc.); also Green Bay, Kewaunee, Wis., etc., also to points east of the Ill.-Ind. state line or south of Ohio River as shown in tariff, effective Jan. 10.

C. F. A. in Sup. 4 to 245-A names local, joint and proportional rates on grain, grain products and by products from points in Ill., Ind., Ia., Ky., Mich., Mo., N. Y., Ohio, Pa., W. Va., Wis., to Albany, Baltimore, Boston, New York, Philadelphia, Rochester, Syracuse, Utica and other eastern points in the U. S., also basis for rates to U. S. and Canadian ports for export, effective Jan. 15.

C., B. & Q. in Sup. 3 to 1218-H names rates on grain, grain products and hay from stations in Kan., Neb., Wyo., Colo., on its lines to Cairo, Metropolis, Ill., Evansville, Ind., Greenville, Natchez and Vicksburg, Miss., New Orleans, La., and Memphis, Tenn., also Port Arthur, Port Bolivar, Galveston, Texas City, Tex., New Orleans, Southport, Westwego, Port Chalmette, La., Pensacola, Fla., Mobile, Ala., and Gulfport, Miss., when for export. Issued Nov. 25, postponed to Jan. 31 effective date of 1218-H.

C. & A. in Sup. 23 to 1574-F further postpones until Jan. 31, 1922, the effective date of Sup. 14 of tariff, which names joint and proportional rates on grain, grain products, seeds, hay and straw, from Kansas City when originating beyond, also Blue Springs, Fulton, Gilliam, Glasgow, Higginsville, Marshall, Mayview, Mexico, Odessa and Slater, Mo., to Cairo, proper or when for southeastern or Carolina territories, and Cincinnati, Evansville, Jeffersonville, Ind., and Louisville, when for southeastern or Carolina territories, also Mississippi Valley points and stations in Ala., La., and Miss., also Key West, Fla., when for export.

Grain Trade News

Reports of new firms, changes, deaths, casualties and failures; new elevators, improvements, fires and accidents are welcome. Let us hear from you.

ARKANSAS

Mena, Ark.—The Ridling Co., to deal in hay, grain and seeds, is opening here the early part of January. Sam Ridling & Son established the business.

Ft. Smith, Ark.—W. D. Graves, who was formerly with the Western Grain Co., has succeeded Sherman M. Durrett as general mgr. of the Durrett Flour & Grain Co.

Texarkana, Ark.—A spectacular fire Dec. 9 completely destroyed the grain elvtr. and hay warehouse of the Fouke Grain Co., totaling a loss of about \$75,000; and altho it was covered with insurance, W. E. Haydon, pres., does not think it will be rebuilt.

CALIFORNIA

Los Angeles, Cal.—Trading on the "board" in carload lots has been abolished by the directors of the Grain Exchange here. This new ruling becomes effective the first of the year.

CANADA

Chatham, Ont.—J. B. Stringer passed away about the middle of November.

Port Arthur, Ont.—The Port Arthur Elvtr. Co. suffered loss by fire a short time ago.

Montreal, Que.—The Ross-Roy Grain Co., Ltd., recently succeeded Genest & Genest.

Vancouver, B. C.—The W. L. Craig Co. has engaged in business here as grain brokers.

Prince Albert, Sask.—The Prince Albert Elvtr. Co., Ltd., incorporated; capital stock, \$20,000.

Ft. William, Ont.—Test piles are being sunk on the site of the Parrish & Heimbecker Elvtr. The erection of the elvtr. will be continued thru the winter.

Ft. William, Ont.—The Brooks Grain Co. recently completed its elvtr. It has a capacity of 30,000 bus. and being operated in connection with the Bole Elvtr., it has a total capacity of 50,000 bus. C. D. Howe & Co. were the constructors.

Montreal, Que.—An addition will be erected to the Grand Trunk elvtr. here, according to C. J. Smith, supt. of the plant. As reported some time ago, plans are being made for the erection of two elvtrs. to increase the grain capacity of this place.

Winnipeg, Man.—After a six months' search by the police, Joseph M. Bessette, who is alleged to have embezzled \$63,000 of the Adanac Grain Co., was arrested on Dec. 18 in Buffalo, N. Y. Mr. Bessette has admitted the charge against him, stating also that the last \$15,000 of the money stolen had been lost several weeks previous in a grain deal. According to H. B. Blackwood, who is acting for the assignee of the company, which found it necessary to assign some months ago, the books of the company were so complicated that it was difficult to determine the exact amount taken by Bessette, who because of his thoro knowledge of the grain business, handled the bills of lading, etc., of farmers whose grain the company was receiving.

COLORADO

La Junta, Colo.—The erection of a 30,000-bu. grain elvtr. is being contemplated by the La Junta Flour Mills. The elvtr. will be of concrete.

IDAHO

Buhl, Ida.—The flour mill of the Buhl Flour Mills Co. has been completed. This concern was incorporated some months ago. Its officers are: Ralph Rondla, pres.; J. J. Rugg, vice-pres.; Claud Brown, sec'y, and A. H. Dixon, general mgr. A grain elvtr. is operated in connection.

Blackfoot, Ida.—The fire that was reported as occurring at our Blackfoot elvtr. did not amount to anything at all and did very little damage.—The Midland Elvtrs.

ILLINOIS

Youngstown, Ill.—A. J. Moulton is the new mgr. of the Youngstown Elvtr. Co.

Danville, Ill.—Please change my address from Danville to Tab, Ind.—M. A. Current.

Chestnut, Ill.—The Farmers Elvtr. Co. recently lowered the driveway into the elvtr.

Lane, Ill.—W. T. Lane has been appointed mgr. here of the grain plant of the Lane Co-op. Elvtr. Co.

Lafayette, Ill.—The Farmers Co-op. Elvtr. Co. recently purchased the coal business of L. A. Huffman.

Litchfield, Ill.—It is understood that the O. K. Mill here will be opened shortly.—Buscher Carrico Grain Co.

Sabina (Leroy p. o.), Ill.—I have taken over one of the L. J. West Elvtrs. here and am operating it.—P. E. Fletcher.

Glenavon (Weedman p. o.), Ill.—I have taken over one of the L. J. West Elvtrs. here and am operating it.—P. E. Fletcher.

Champaign, Ill.—The Farmers Grain Co. suffered a \$300 loss when a fire started in its basement caused by an overheated furnace.

Hayes, Ill.—Mail to John C. Koehn, who is proprietor of the Hayes Elvtr., should be addressed to Tuscola, which is now the postoffice.

Villa Grove, Ill.—The Villa Grove Farmers Elvtr. Co., of which G. T. Banick is mgr., has installed a 20-h. p. motor and a new sheller drag.

Ipava, Ill.—The elvtr. of the Farmers Elvtr. is being fitted up with a new asbestos siding and an iron roof. A \$5,000 warehouse has been built.

Welland (Mendota p. o.), Ill.—The Penrose Elvtr. Co. has had a new concrete driveway entrance to the elvtr. built and the office and elvtr. freshly painted.

Litchfield, Ill.—It is understood that the O. K. Mill here will be opened shortly.—Buscher Carrico Grain Co. This is the plant in which C. B. Munday is interested.

Sands (Lyndon p. o.), Ill.—About 10,000 bus. of oats and two cars of corn went up in smoke on Dec. 8, when the grain elvtr. of the Armour Grain Co. was destroyed by fire.

Long Creek, Ill.—I am out of the grain business and Hayden Veech has taken my place.—M. K. DeVore. Mr. Veech is reported as being an agent of the La Place Co-op. Grain Co.

Fletcher (Cooksville p. o.), Ill.—The Fletcher Grain Co. expects to have the roof on its concrete elvtr. that the Eikenberry Construction Co. is building here if the weather stays warm for another week.

Chesterville (Lincoln p. o.), Ill.—We have purchased the elvtrs. here formerly owned by the Chesterville Farmers Elvtr. Co. and will operate them under the name of Miller & Woodcock.—C. O. Miller.

Funks Grove (McLean p. o.), Ill.—The Funks Grove Grain Co. is rearranging the machinery in its elvtr. so as to use either motor or the gas engine for power. The Eikenberry Construction Co. is doing the work.

Fiatt, Ill.—Checks of the Fiatt Farmers Elvtr. Co. were forged and cashed, causing a loss of over \$1,000, altho the amounts of the checks came to \$2,600. When the forger tried to cash the checks, the bank objected to giving out the money without identification, so he succeeded in getting about \$1,000 by depositing a large amount in the bank, which, of course, was returned to the elvtr. company when everything was known.

Newman, Ill.—The firm name of our new plant is the D. & H. Elvtr. The capacity is 25,000 bus. ear corn, 50,000 bus. oats and 15,000 bus. shell corn.—B. H. Heaton, the D. & H. Elvtr. The purchase of this elvtr., formerly known as the National Elvtr. Co., was reported in this column Dec. 10.

Dorans, Ill.—Seaman & Morris have installed a wagon scale having a dial weight indicator, made by Fairbanks, Morse & Co., and have put in all new machinery thruout the plant, including new engine and boiler, new driveways and an addition to the building at a cost of \$8,000 for improvements.—Morris & Stone, Mattoon.

Appel Siding (Herscher P. O.), Ill.—I am taking the place of Fred H. Wood, who resigned Oct. 1. Geo. Appel is pres. of this concern and had charge of the elvtr. till Dec. 1, at which time I started here. I have been employed for the last 8 years by L. A. Siederstop, Dickeys Siding, Herscher.—Alfred Thuesen, mgr. Appel Siding Farmers Elvtr. Co.

CHICAGO NOTES.

The offices of E. F. Leland & Co. are now located in the Old Colony Life Bldg.

The firm of McCarthy & Scoville was recently admitted to the clearing house of the Board of Trade.

The Whole Grain Wheat Co. recently opened a branch office at Wichita, Kan., with T. E. Wathens in charge.

T. E. Cunningham, vice-pres., and J. C. Murray, director, of the Board of Trade, have resigned their offices.

Otto Waitzmann has sailed for Europe and will visit Germany, planning a business-pleasure trip of about two months.

F. R. Spear, who was known as the pioneer grain dealer of this city, passed away this month. His widow survives him.

E. N. Blake, an ex-pres. of the Board of Trade, died Dec. 17 at Arlington, Mass. Mr. Blake was at one time connected with Blake, Shaw & Co. He was 92 years old.

Frank Rice, who has been vice-president of the Star & Crescent Milling Co. for about 20 years, is retiring from business the last of this year. His son, Lawrence Rice, will succeed him as vice-president of the company.

The following members were elected to the Board of Trade on Dec. 20: A. C. Robinson, St. Louis; Ed Wise, New York; E. J. Kopplekam, Milwaukee, and W. S. Masten, Charles Brayton, W. E. Melican, all of Chicago.

Perry Kenly, formerly connected with S. B. Chapin & Co., and R. C. Wheeler recently formed a partnership to deal in stocks, bonds, grain, provisions, etc. They are members of the Board of Trade and of the Chicago and New York Stock Exchanges.

A thousand or more children had a regular Christmas dinner of turkey and all the "fixings" given by the "Big Brothers" of the Elks on Dec. 21. The exchange floor of the Board of Trade was allotted for the purpose and the wives of these kindly spirited men served the dinner.

To raise a fund for a new Board of Trade building the directors have approved an amendment of the rules so that members can by referendum approve or disapprove of a plan to assess all trades made on the Board of Trade for a period of 5 years. As the building will cost several million dollars, it is contemplated also to issue certificates of indebtedness convertible into second mortgage bonds.

The following officers were elected at the annual meeting of the Grain Receivers Ass'n, recently held: George Wegener, pres.; G. S. Bridge, vice-pres., and Harry Carroll, E. M. Larson, C. H. Thayer, George Booth and Alex Moore, directors. Mr. Wegener has been urged to accept his nomination of candidate for director of the Board of Trade, which position was recently vacated by James Murray.

B. E. Howard, well known as a grain statistician and editor of the Daily Trade Bulletin, an authority on grain, died Dec. 15, after an illness of several weeks. Mr. Howard was editor of the old Chicago Inter-Ocean for twenty years. He was one of the founders of the government crop reporting system, which has recently become internationally known. He was 82 years old when he died and is survived by his widow, three daughters and one son, Frank R. Howard, the latter having recently become pres. of Howard, Bartels & Co.

Restitution of amounts totaling about \$100,000 to customers of T. W. Keelin & Co. has been ordered by the judge who heard the case, in which the company and individuals connected with it were charged with conspiracy to defraud by giving short weights in grain sold over a series of years.

INDIANA

Mishawaka, Ind.—An addition to the Grange Elvtr. Co. is being erected.

Ft. Wayne, Ind.—An office has been opened here by Thomson & McKinnon of Chicago.

Indianapolis, Ind.—The firm of Probst & Kassebaum is out of business.—W. F. Kassebaum.

Pleasant Lake, Ind.—George Brown recently succeeded T. I. Ferris as mgr. of the Steuben Grain Co.

Tab, Ind.—I have purchased the Tab elvtr. from the Sawers Grain Co. and am now operating it.—M. A. Current.

Howe, Ind.—The correct name of Smith & Schweitzer's elvtr. is the Lima Elvtr. Co., of which H. H. Smith is mgr.

Decatur, Ind.—The Adams County Equity Exchange has received sealed bids for the sale of the Peterson Grain Elvtr.

Brazil, Ind.—Will Scharf recently succeeded Paul Mitchell in the management of the flour mill and elvtr. of the Farmers Co-op. Co.

Valparaiso, Ind.—The correct postoffice address of the Farmers Elvtr. Co. at Malden sta. is Valparaiso, and not La Crosse, as was reported.

Randolph, Ind.—Richards & Ross are not operating their elvtr. at Randolph any longer, but are now located at Glen Karn, O., under the name of Richards & Simpson.

Indianapolis, Ind.—The board of mgrs. has tentatively fixed the date for the annual meeting of this ass'n for Jan. 24 and 25 at Indianapolis.—Chas. B. Riley, sec'y, Indiana Grain Dealers Ass'n.

Twelve Mile, Ind.—The Farmers Elvtr. Co. was robbed recently, this being the second occurrence in about four months. The culprits succeeded in making away with over a dozen automobile tires and a number of new tubes.

Mardenis sta. (Huntington p. o.), Ind.—Beginning Jan. 12 E. P. Beaver, receiver for the Mardenis Equity Exchange, will receive bids for the property of the company. This consists of the elvtr. here and those at Roanoke, Simpson and Markle.

Ft. Wayne, Ind.—We do not contemplate rebuilding. Our old plant has been dismantled completely and we are out of business and do not intend to re-embark in business.—C. Treselt & Sons. It had been reported the firm bot 15 acres as a site.

Crown Point, Ind.—L. C. Evans, a grain dealer of Gary, has been charged with passing a worthless check made out for \$135.32 on E. H. Hixon, who conducts the Hixon Grain Co. here. When the matter was investigated, it was found that Evans did not even carry an account at the bank on which he had made the check payable.

Jamestown, Ind.—Newton Busenbark of the Busenbark Grain Co., Crawfordsville, which has elvtrs. at Hazelrigg, North Salem, New Market, Barnard, Lapland and Waveland, is the new owner of the Farmers Elvtr. Co. of Jamestown, having bought it from its receiver, M. H. Roberts. "We expect to do some improving and rearranging on this plant. We will probably dismantle the flour mill. The plant is located on the Big 4 railroad and has a 30,000-bu. capacity, with a three story seed house in connection. We expect to enlarge on this branch of the business.—Busenbark Grain Co., per Newton Busenbark."

IOWA

Galt, Ia.—W. F. Maywald has succeeded W. W. Azeltine as mgr. of the Galt Co-op. Grain Co.

Altoona, Ia.—Clark Pearson, who had given up his position with the O. H. Pearson Elvtr. here as he was planning a trip to the South, has decided that as long as Iowa's pleasant weather keeps up he will stay up there. Mr. Pearson owned this elvtr. at one time.

Modale, Ia.—The Nye, Schneider, Jenks Co. installed a Hall Signaling Grain Distributor in its elvtr.

Mechanicsville, Ia.—Ernest Peck of Olin has succeeded G. M. Crosby as mgr. of the Jurgensen Grain Co.

New Hartford, Ia.—We have been out of the grain business for the last two years.—Van Deest & Son.

Whittemore, Ia.—The organization of a farmers elvtr. is contemplated, to build or buy the business of the Whittemore Elvtr. Co.

Dougherty, Ia.—Charles Merrick, pres. of the Farmers Co-op. Society, was stricken with apoplexy and died in 3 hours recently.

Bondurant, Ia.—The elvtr. of the Brown Grain Co. burned at 6:30 p. m., Dec. 11. Loss, \$25,000. Several carloads of grain were lost.

Storm Lake, Ia.—John E. Brennan & Co. of Chicago have established an office here with Walter Green, formerly traveling salesman for the company, in charge.

Des Moines, Ia.—The court has directed a verdict in favor of John J. Hollebrands in the suit brot by the Iowa Grain Co. to recover \$1,500 margins advanced.

Rock Rapids, Ia.—The Farmers Co-op. Exchange has completed its new 25x60 offices and storeroom in a cement block building. We have moved in.—Jas. Hoben, mgr.

Des Moines, Ia.—The Des Moines Elvtrs. Co. is following the prospective sale of corn and grain in Mexico. A salesman, Jay Thorp, has already started work in that field.

Percival, Ia.—Kellogg & Wilson have completed and are operating their elvtr. Mr. Kellogg is in charge of the elvtr., while Mr. Wilson takes care of the business end at Nebraska City, Neb.

Charles City, Ia.—The town of Carney has been changed to Oakwood, Ia. The Farmers Grain Ass'n is still operating the elvtr. at the same place, formerly receiving mail at Charles City.—T. G. Schilling.

Wadleigh (Knierim p. o.), Ia.—Albert Owann is the new mgr. of the T. W. Wright Grain & Coal Co., taking the position of Albert Arenson, who is now managing the Farmers Grain & Coal Co. at Knierim.

Des Moines, Ia.—I am now employed by the Iowa Corn Products Co., in charge of the cash grain dept.—L. G. Clay. Mr. Clay was formerly superintendent of the Planters Terminal Elvtr. Co. of Des Moines.

Crawfordsville, Ia.—Our new elvtr. will be equipped for grinding and will have a good size warehouse for the handling of mill feed. Our headquarters are at North English.—Home Lumber Co., John L. Bullers, mgr.

Des Moines, Ia.—This firm was organized about Sept. 15. The incorporation is not yet completed. We will put up no buildings; just do a general brokerage business in grain, feed and flour.—A. J. Rowland Brokerage Co., A. J. Rowland, pres.

Hawley (Hayfield p. o.), Ia.—A \$15,000 fire loss was suffered by Hubbard Grain Co. of Mason City when its elvtr. burned Dec. 15. Partially covered by insurance. The elvtr. had not been in operation recently and it is decided that overnight lodgers set it afire by careless smoking.

Burlington, Ia.—A. O. Stephenson, formerly mgr. of the Iowa Grain Co., Cedar Rapids, died Dec. 12. At one time he was the mgr. of a grain and lumber business at Olds, Ia., and during the war he was a member of the Iowa State Food Administration. C. E. Stephenson of Des Moines is a brother.

Sioux City, Ia.—At the annual election of officers of the Sioux City Grain Exchange held on Dec. 7, the following officers were elected: H. J. Hutton, pres.; P. A. Ketels, vice-pres.; J. C. Mullaney, treas., and J. A. Tiedeman, sec'y. This is Mr. Tiedeman's third term. Paul Larson was re-elected chief grain inspector and weighmaster of the Exchange. The number of cars shipped on orders from Sioux City was given out as 6,786 and the grain receipts were 8,483.

KANSAS

St. John, Kan.—We recently completed flour bins large enough to hold sixteen hours' run, thus enabling us to take off our entire run in eight hours' daylight.—St. John Mills, by J. P. McGuire.

Manchester, Kan.—We did not build of elvtr. as formerly reported.—Manchester Grain Co.

Wichita, Kan.—The Schaefer Grain Co. has assigned. C. A. Baldwin is the company trustee.

Herington, Kan.—W. R. Sangwin, who has been sec'y, was recently chosen manager of the Farmers Union Elvtr. Co.

Kingman, Kan.—The Wheat Glory Co., which has not been operating, was recently reorganized with T. H. Urton as mgr.

Kirwin, Kan.—A fire, causing an explosion, damaged the Farmers Elvtr. here on Dec. 14. weevil fumigant was being used.

Belpre, Kan.—Clarence Laird of the Mid-West Grain Co. has removed to Hutchinson. He will still be connected with the grain company.

Minneapolis, Kan.—We had a fire originating in engine room, caused by the exhaust pot having been placed too close to the wall. The damage amounted to \$1,200.—Farmers Elvtr. Co.

Garden City, Kan.—The erection of another elvtr. and flour mill was discussed at a recent meeting of the stockholders of the Farmers Co-op. Equity Exchange. Com'ites were chosen to investigate.

Benton, Kan.—The elvtr. of the Larabee Flour Mills Co. burned the night of Dec. 13. Loss about \$7,000. Plans have been made for the rebuilding of the plant, which is to have a capacity of 10,000 bus.

Clifton, Kan.—J. B. Coates, who recently bought an elvtr. from the Associated Mill & Elvtr. Co., is planning to begin the work of repairing it. J. A. Stober will be connected with him in the new business.

Neodesha, Kan.—The elvtr. of the Land Milling Co. was burned on Nov. 30, the cause of the fire, it is believed, being defective wiring. The same thing occurred some months ago and nearly destroyed the plant.

Corinth Sta., Kan.—The Voss Grain Co. of Downs, which recently established an elvtr. at Corinth, receives its mail at Downs because there is no postoffice at Corinth.—H. C. Robinson Grain Co., H. C. Nielsen, mgr., Osborne, Kan.

Salina, Kan.—The Farmers Co-operative Grain Dealers Ass'n of Kansas will hold its 10th annual convention at Salina, Feb. 22 to 24. Special reduced rates are being arranged for a special train service between Hutchinson and Salina.—R. E. Lawrence, sec'y, Hutchinson.

Edson, Kan.—My elvtr. was remodeled last summer by W. C. Bailey & Son, enlarging it from 11,000 to 16,000 bus. capacity. All new machinery was put in, including 15-h. p. F. M. engine, Fairbanks 15-ton truck, Globe Dump 6-bu. Richardson Automatic Scale, Hall Boot Leg and Distributor.—G. E. Fike.

Topeka, Kan.—The Kaw Milling Co. has brought suit against C. W. Hoyt, former mgr. of the grain dept., for \$20,180. It is alleged that Mr. Hoyt failed to live up to his contract to make good his share of the losses, \$15,180, and that he secured a check for \$5,000 from the Katy Milling Co. of Emporia, which concern is also operated by the Kaw company.

Kansas City, Kan.—Warrants for the arrest of K. M. Wharry and J. C. Robb of the Kansas City Brokerage Co. were issued recently on the complaint of A. F. Niemoller of Wakefield, who formerly conducted a milling business there. The charge is embezzlement of a car of flour valued at \$2,500, in 1920. Mr. Niemoller was trying to sell the flour thru the brokerage company, but has never received any money on even an accounting of the transaction. The men were released on \$5,000 bonds until their preliminary hearing Dec. 27.

MARYLAND

Baltimore, Md.—J. J. Corner, who for a number of years was the head of J. J. Corner & Co., died the early part of this month at White Plains, N. Y. Mr. Corner was 76 years old.

Baltimore, Md.—L. C. Isbister is to be a partner in the firm of Howser & Co., grain brokers of New York. Mr. Isbister has, up to this time, been connected with Dennis & Co., grain commission merchants.

Baltimore, Md.—The following were elected members of the Chamber of Commerce here at the meeting held Dec. 12: H. A. Kline of the Farmers Milling & Grain Co., Mt. Airy, Md., and W. B. Hax of G. A. Hax & Co.

Hagerstown, Md.—The Hagerstown Grain exchange has been organized here.

MICHIGAN

Detroit, Mich.—The J. S. Lapham Co. has removed to the Board of Trade, Murphy Bldg.

Rose City, Mich.—A lumber shed is to be built by the Rose City Elvtr. Co. W. J. Cumling is mgr.

Freeport, Mich.—J. F. Edmonds has succeeded H. H. Reusch as secretary of the Freeport Farmers Elvtr. Co.

Hamilton, Mich.—The sum of \$10,000 has been raised by the Hamilton Farm Bureau Ass'n for the erection of a new elvtr.

Greenville, Mich.—The elvtr. of the R. J. Lower Milling Co. was recently equipped with Hall Signaling Grain Distributor.

Jackson, Mich.—H. W. Bucknell has resigned as treas. of the Stockbridge Elvtr. Co. and is no longer connected with the grain business.

Jackson, Mich.—The Wagner-White Co. has leased its warehouse and has taken offices in the Carter Bldg. It has discontinued the retail dept.

Hemans, Mich.—The Farmers Co-op. Elvtr. Ass'n completed a warehouse and elvtr. with round steel bins recently.—Snover Grain Co., Snover, Mich.

Mt. Pleasant, Mich.—The business of Chatterton & Son at Mt. Pleasant has been incorporated under the name of the Chatterton Elvtr. Co.—Chatterton & Son, Lansing.

Rollin, Mich.—The Rollin Elvtr. was temporarily reorganized a short time ago when farmers and representatives of the state and county met and drew up their plans. The Rollin Elvtr. was organized about a year ago, but was unsuccessful.

MINNESOTA

Isanti, Minn.—We have completed our 10,000-bu. elvtr.—Isanti Co-op. Produce Co.

Minneapolis, Minn.—A fire loss amounting to \$4,000 was suffered by the Pioneer Grain Co. recently.

Chokio, Minn.—E. H. Salmonson has succeeded L. E. Eddy as manager of the Chokio Equity Exchange.

Red Lake Falls, Minn.—The Farmers Elvtr. will hereafter be conducted by Will Schroeder and Geo. Peterson.

Cannon Falls, Minn.—The capital stock of the Cannon Falls Farmers Elvtr. was recently increased to \$10,000.

Fairmont, Minn.—The Fairmont Elvtr. Co. will be incorporated and it is also contemplating the erection of a grain warehouse to be 74x40 ft.

Olivia, Minn.—The W. H. Price Grain Co. has sold out to the Banner Grain Co. of Minneapolis. The house is not being operated.—C. G. Loyhart, mgr.

Duluth, Minn.—Carlisle Hastings has succeeded L. Briley as cash grain man of the W. L. Mitchell Co., the latter having been transferred to the Minneapolis branch.

Kittson (Crookston p. o.), Minn.—The Kittson grain elvtr. owned by the St. Anthony & Dakota Elvtr. Co., together with railroad coal sheds and freight cars, were burned Dec. 6.

Wells, Minn.—Our elvtr. has been enlarged with 6 bins over driveway and a new cleaner and latest type of Richardson Automatic Scale have been installed. We have another leg, with new pits front and back, and this fall we installed a new corn elvtr. for unloading and elevating ear corn into the crib.—Farmers Elvtr. Co., Val C. Meyer, mgr.

MISSOURI

Kansas City, Mo.—The officers for the Board of Trade for 1922 will be elected Jan. 3.

Independence, Mo.—The machinery has been installed in the new concrete plant of the May Hill & Elvtr. Co.

Centertown, Mo.—The capital stock of the Mahan Milling & Elvtr. Co. has been increased from \$10,000 to \$20,000.

Kansas City, Mo.—The Brodnax-McLiney Commission Co. went out of business in September, this firm taking over their consignment business.—Frisco Elvtrs. Co., F. J. Brodnax, res.

Sturgeon, Mo.—I have painted my elvtr. and put in a 10-ton truck scale. Nothing but dull times now.—C. W. Glynn.

Beaufort, Mo.—We are not in the grain business any more.—John Wildhaber & Son. Mr. Wildhaber writes from St. Louis.

Ewing, Mo.—We are thinking seriously of rebuilding our elvtr. next year.—Farmers Elvtr. & Exchange, R. L. Phillips, mgr.

St. Louis, Mo.—The St. Louis Stock Exchange will be located in the Merchants Exchange bldg. It is planning removal in January.

Chesterfield, Mo.—Non-negotiable stock certificates amounting to \$500 were stolen from the Chesterfield Elvtr. & Supply Co. on Dec. 9.

Chillicothe, Mo.—The office of the Armour Grain Co. has been discontinued here and the mgr. in charge has been transferred to Sedalia.

Butler, Mo.—The Farmers Elvtr. was sold Dec. 3. It is reported that this was done to give the reorganization com'te more time to collect the necessary funds.

Kansas City, Mo.—It is the belief of B. C. Moore, receiver of the Frank B. Clay Co., that the company, which filed voluntary bankruptcy, will pay dollar for dollar to its creditors.

Collins, Mo.—The mill and elvtr. here is still known as the Collins Roller Mills Co.—J. W. Kelly. It was formerly reported that the name had been changed to Sac Valley Milling Co.

Marshall, Mo.—The 25,000-bu. elvtr. of the Goodwin-Fletcher Grain Co. is nearing completion. The building is 75 ft. high, iron clad, and is served by a private track connecting with both the Mo. P. and C. & A. rails.

Cameron, Mo.—Mail addressed to the W. H. Seaton Grain Co. is returned "Unclaimed." Mr. Seaton has informed us, however, that in addition to the establishment at Cameron, he has an office in Lathrop where he spends part of his time and where his mail should be sent.

Anglum, Mo.—We are planning to build a warehouse here and an elvtr. at Sands between now and next July. The warehouse is to be 30x80 and elvtr. about 5,000 bus. capacity. We bot the Schultz & Niemeier Commission Co.'s elvtr. here last May.—Florissant Valley Co-op. Elvtr. Ass'n, E. R. Goddard, mgr.

St. Louis, Mo.—Salaries amounting to \$1,775 for 14 weighers and inspectors of the Missouri State Grain & Warehouse, are being held up by the state auditor, G. F. Hackmann, because Commissioner Hedrick attempted to pay the men from the private inspection fund, when there was no specific appropriation.

Kansas City, Mo.—The following have been nominated for officers in the Board of Trade for 1922: James N. Russell and William B. Lathrop for pres.; Harry J. Smith, first vice-pres.; second vice-pres., Allen Logan and Fred C. Hoose; directors, N. F. Noland, E. M. Jolly, W. C. Bagley, S. B. Gregg, B. M. Huffine, Chas. A. Dayton, W. A. Hinchman, David Heenan, W. W. Marshall, B. C. Christopher, Jr., Jay H. Woodridge, William Murphy; arbitration committee, J. J. Kraettli, R. A. Jeanneret, F. W. Lake, W. H. Marshall, W. G. Hoover, O. T. Cook, E. F. Emmons, George K. Walton, F. L. Bedell, F. W. Hipple. The election will be held Jan. 3.

ST. LOUIS LETTER.

A plant of the Fleischmann Co., manufacturers of compressed yeast, will be erected here.

The Annan-Burg Grain & Milling Co. recently bought the building that it has been using for a flour blending plant for over a decade.

George Powell heads the regular ticket for the nomination of officers of the Merchants Exchange. Others whose names are on the list are: W. J. Edwards, as first vice-pres.; Samuel Plant, second vice-pres.; W. J. Niergarth, Joseph Newell, Fred Langenberg and H. A. Von Rump, all as directors.

The court has sustained a demurrer to the suit which was brought up against former Missouri Grain Warehouse Commissioner Bradshaw some months ago. The state tried to recover \$13,157 which Mr. Bradshaw is alleged to have taken from the private weighing fund to be used for salaries and office expenses.

MONTANA

Scobey, Mont.—P. Hellin, formerly agent for the Montana & Dakota Grain Co., has left this place.

Fallon, Mont.—Mail addressed to A. Grinder, who was mgr. for Hackney & Alair, is returned marked "Moved—Left no address."

Great Falls, Mont.—The elvtrs. formerly operated by the Montana Grain Growers Ass'n, now a defunct concern, were recently taken over by the Northern Warehouse & Brokerage Co. of Helena.

Billings, Mont.—The following were recently elected officers of the Farmers Union Co-op. Exchange: Joseph Hoffman, pres.; W. J. Hopper, vice-pres.; E. R. Kindler, sec'y; P. S. Peterson, W. J. Hopper and E. R. Kindler, directors for three years, and J. J. Renzema, director for two years.

Billings, Mont.—McCormick, Inc., to buy and sell wheat and grains and to deal in agricultural machinery, has been incorporated for \$250,000. Incorporators, P. H. Barnes, I. D. O'Donnell and W. J. McCormick. The new concern will also operate elvtrs. and will deal as commission merchants.

Great Falls, Mont.—The Northern Warehouse & Brokerage Co. of Helena has taken over the defunct Montana Grain Growers Ass'n which operated a number of elvtrs. thru the state. J. C. Crites, receiver of the Montana company, announced recently that the plans for the reorganization of the company have been given up.

NEBRASKA

Marsland, Neb.—I expect to improve my elvtr. this spring.—George H. Young.

Sidney, Neb.—E. J. Leonard is the new mgr. of the Farmers Union Co-op. Ass'n.

Burr, Neb.—A. B. Wilson is the new owner of the elvtr. formerly operated by G. K. Petring.

Bertrand, Neb.—Johnson & Johnson, of the Holdrege Mills, have bot the Bertrand Roller Mills.

Liberty, Neb.—I am now mgr. of the Liberty Grain Co. I took Bert Hall's place.—C. W. Hagerman.

Chapman, Neb.—A Hall Signaling Grain Distributor and Omaha Buckets have been installed in the elvtr. of the T. B. Hord Grain Co.

Nebraska City, Neb.—The Wash-Co. Alfalfa Milling Co. has been closed for 18 months, awaiting a complete reorganization. The company is not operating the elvtr.

Riverdale, Neb.—A \$6,000 fire loss was suffered by the owners of the Gould Elvtr. here when the elvtr. was burned on Dec. 15. The house is operated by the Land & Cattle Co.

Dewitt, Neb.—Mail addressed to Wm. Sasek, who a short time ago was reported as the new owner of Barmby & Tobaben's elvtr., is returned by the P. O. department marked "not here."

Omaha, Neb.—The Nebraska Farmers Grain Dealers Ass'n at its recent convention elected the following officers: J. S. Canady, Minden, pres.; J. R. Morrison, Chappell, vice-pres.; J. W. Shorthill, Omaha, sec'y-treas.

Lincoln, Neb.—We have sold our elvtr. at Malvern, Ia., to J. J. Shimek of Narka, Kan., who has leased the elvtr. to Kuncie & Nelson of Malvern. We have opened up a grain brokerage and commission business here under the firm name of the Aden Grain Co.—H. L. Aden.

Pender, Neb.—The Farmers Union Mercantile Co. recently doubled the capacity of its elvtr. and also installed larger cups and a larger belt. The dump pit has been partitioned so that now two products can be handled at one time. F. V. Uridil, mgr. of the concern, says, "We expect to install a new truck dump in the near future."

Schuyler, Neb.—Herbert Daniel, retiring postmaster, has been appointed auditor of the Wells-Abbott-Nieman Co., which recently passed into the hands of receivers, later to be bot by the Omaha National Bank. This last report will not be confirmed yet until Mr. Daniel has gone over the affairs of the company. It had been reported that more than \$200,000, 90% of which came from the people of Schuyler, has been subscribed to the fund which was to be used for reorganization of the company. About \$300,000 was needed to put the project thru.

NEW MEXICO

Clovis, N. M.—The Cramer Mill & Elvtr. Co. has installed new machinery in its plant. They write us as follows: "We know of no town of Curry, N. M., and are building nor improving no elvtr. there, as reported."

NEW ENGLAND

Marlboro, Mass.—The City Grain Co., branch of the Cutler Co., is going to erect addition of two bins for unloading oats.

Portland, Conn.—Nathan and Max Cohen, who were in the grain business, recently bot the Valley Mills of The Coles Co.

Peabody, Mass.—A. P. Ames' grain and hay store burned Dec. 4. Hundreds of bushels of grain and about 50 tons of hay were burned, the total loss amounting to about \$10,000.

Wayland, Mass.—The Wayland Grain Co. incorporated; capital stock, \$25,000; to deal in grain and feedstuffs. Incorporators, Howard W. Parmenter and Gertrude I. M. Parmenter and William F. Smith of Weston, Mass.—S.

Williamstown, Mass.—P. W. Eaton died the early part of December at his home after a long illness. Mr. Eaton conducted a wholesale grain business in which he was actively engaged until a short time ago. He was 70 years old.

Medford, Mass.—Henry P. Van de Bogert, Jr., of the executive board of the Grain Board of the Boston Chamber of Commerce, was re-elected an alderman in this, his home city, in a spirited three-cornered fight for a second term and it is predicted that higher honors await him when the mayoralty campaign of next year opens.—S.

Boston, Mass.—Plans are going forward rapidly for the construction of the new Chamber of Commerce Building to replace the present structure which is outgrown. In the new structure much larger quarters are set apart for the Grain Board and the Grain Exchange. The new structure will be erected at Franklin, Federal and Congress streets in the heart of the new financial district. It will be twelve stories high and 151x184 feet. The entire two upper floors will be devoted to the uses of the Chamber of Commerce and the remainder will be used for offices. Plans now are that two additional floors will be occupied by grain, flour, hay and kindred concerns, grouping the representatives of this business and providing in the building quarters which have long been needed but not available for representative firms of this character that have been obliged to obtain offices outside the present building. Work will start on the new building Apr. 1 next.—S.

NEW JERSEY

Elizabeth, N. J.—The coal, lumber and grain yard of John M. Reuter burned Dec. 16, causing a loss of about \$100,000. The fire is believed to have started from a spark from a passing locomotive.

NEW YORK

Buffalo, N. Y.—F. J. Collins, of the recently organized firm, Fred J. Collins, Inc., has taken over the Buffalo business of the Urmston Grain Co., of Indianapolis, of which he was the former mgr.

Cattaraugus, N. Y.—The Grange League Federation Exchange is making plans for the establishment of grain elvtrs. here, one at Ellicottville and another at South Dayton. Vern Oakes of South Dayton has been elected sec'y.

Buffalo, N. Y.—The Electric Steel Elvtr. Co. of Minneapolis recently purchased the Buffalo plant of the American Malt & Grain Co. from its liquidating trustees. The plant has a storage capacity of 2,250,000 bus. and is to be used as a blending and mixing house.

Buffalo, N. Y.—W. E. Townsend led members of the Buffalo Corn Exchange in raising over \$1,000 which is to be used for Christmas dinners and Christmas gifts for poor families. W. J. Heinold, pres. of John G. Heinold, Inc., grain merchants, has been elected chairman of the subscription com'te.

NEW YORK LETTER.

The following have been elected as new members of the New York Produce Exchange: C. S. Norris, assistant mgr. of the New York office of the Simonds-Shields-Lonsdale Grain Co.; J. A. Rasmussen of J. A. Rasmussen & Co., dealers in grain, and A. D. Thomson of Duluth, Minn.

The death of W. K. Voorhees is being mourned by members of the hay and grain industry here. Mr. Voorhees, who was past 80 years when he died, established the firm of Jewell & Voorhees over 50 years ago, and his son, F. S. Voorhees is now president of the Voorhees Grain Co. which is being conducted on that site.

The Brainard Commission Co., together with W. J. Brainard and Harry Day, are applicants to be reinstated in the Produce Exchange from which they were suspended for one year.

NORTH DAKOTA

Ft. Totten, N. D.—Frank Palmer's farm elvtr. burned recently. The grain was insured for \$2,000.

Manvel, N. D.—The Levant Elvtr. Co. has moved its headquarters from Grand Forks to this place.

Fryburg, N. D.—Al. Davis has resigned his position as manager of the Fryburg Farmers Co-op. Union Elvtr. Co.

Wildrose, N. D.—My father, A. J. Scheer, has retired from the grain business, selling his elvtr. at Hamberg and giving me this one at Wildrose.—A. J. Scheer.

Carson, N. D.—The Farmers Equity Exchange Elvtr. is closed now. It is owned by the McCaull-Dinsmore Co., Minneapolis. The Grant Grain Co. elvtrs. at Carson and Odessa have closed.

Grand Forks, N. D.—A. Myklebye was recently appointed temporary director of the state mill and elvtr. under construction, succeeding H. O. Paulson in that capacity. Mr. Myklebye is a member of the Dakota Construction Co.

Moselle (Wyndmere p. o.), N. D.—I am mgr. of the Farmers Equity Elvtr. Co. here and Fred Seeling is mgr. of my elvtr. at Barney. This change took effect last August. I did not rent Fred Seeling my Barney elvtr. as has been reported.—Farmers Equity Elvtr. Co. of Moselle, Stanley Jackson, mgr.

White Earth, N. D.—The St. Anthony & Dakota Elvtr. Co. is being sued by the Great Northern railroad for \$3,695, for damage done to a passenger train in June, 1919. The complaint, which was filed by J. B. Payne, director general of railroads, is that workmen of the elvtr. company were careless in leaving two cars of coal for the night without setting the brakes. During the night a strong wind carried the cars from the side track onto the main track, derailing the engine and a coach of a passenger train.

OHIO

Jackson Center, O.—I have sold out to the Jackson Center Grain Co.—A. L. Briggs.

Brookville, O.—Bert Schlientz is the new owner of the elvtr. formerly operated by the Klepinger Grain Co.

Octa, O.—Address us as the Octa Grain Co.—Octa Grain Co. This concern was formerly known as Gidding Bros.

Cincinnati, O.—The U. S. Department of Agriculture is now located in the Gwynne Bldg. where the Cincinnati Grain and Hay Exchange also has its headquarters.

Mount Cory, O.—Stockholders of the Farmers Elvtr. & Exchange Co. recently elected W. O. Smith as mgr. of the concern. W. H. Hochstetler was formerly the mgr.

Monnett, O.—The equipment and machinery that had been contemplated by the Monnett Elvtr. Co. has now been installed, consisting of a 10-ton Fairbanks Scale, bins and a dump.

Cincinnati, O.—A fire at the Grain Products Co. Dec. 15 caused a \$45,000 loss, \$20,000 of which was suffered by the grain company and which is only partially covered by insurance. Adjoining buildings were burned.

Bedford, O.—The Bedford Milling Co., incorporated; capital stock, \$10,000. Incorporators, Edgar and Emery Thierwechter, G. A. True, Ardath Bredeck and Ruel Crawford. This company was purchased a short time ago by Emery Thierwechter, of Oak Harbor, and others.

Cincinnati, O.—Charles S. Maguire, who was an active figure in the grain trade, died at his home Dec. 12 of pneumonia. He has been connected with the Chamber of Commerce and other organizations. He is survived by his widow, three daughters and a son, Frank R. Maguire, who was with his father in the grain business.

Lima, O.—A merger has recently been effected whereby this company became exclusive sales agents for 25 co-operative elvtrs. in Ohio and Indiana. No elvtr. will be built but cleaned country run grain will be offered. John F. Deckard, formerly of Mansfield, is sales mgr.—Ohio Central Equity Exchange Co., per J. O. Cass, sec'y.

Maplewood, O.—We have bought the elvtr. A. L. Briggs at Jackson Center, and have incorporated both places under the name of the Jackson Center Grain Co. and the Pence Grain Co. here. Frank Baughman is pres., and I am sec'y-treas.—J. M. Pence. It is further reported that the Pence Grain Co. incorporated for \$35,000, with the following incorporators: Frank Baughman, J. M. Pence, Stell Wright, Daisie Pence and W. C. Meranda.

OKLAHOMA

El Reno, Okla.—The El Reno Mill & Elvtr. Co. has moved into its newly completed \$25,000 office.

Hollis, Okla.—A galvanized flour and feed house has been erected in connection with the elvtr. of Hendrick & Scruggs.

Oklahoma City, Okla.—The Belt Mill & Grain Co. incorporated; capital stock, \$5,000; incorporators, J. E., J. W., and E. V. Strader.

Capron, Okla.—The Southwestern Elvtr. Mercantile Co. is the new owner of the S. Grain Co.'s elvtr. Ross McClure has been manager.

Enid, Okla.—T. C. Cones, who is going to California for his health, writes: "I sold my last elvtr. at Ames last spring to the Sun Grain & Export Co. of Guthrie."

Ponca City, Okla.—D. J. Donahue of the Ponca City Milling Co. announced that Oklahoma's greatest flour mill will be erected here if it drive to secure another railroad is successful.

Guthrie, Okla.—The Gresham Flour Mills Corporation which has ceased to operate is able to make settlement to its creditors of 25c on the dollar.—Gresham Flour Mills Corp., Frank Gresham.

Big Cabin, Okla.—The Austin Grain Co. has discontinued its grain business here and White Oak. It has sold the elvtrs. back to the R. H. Drennan Grain Co.—E. F. Oekle, R. Drennan Grain Co., Vinita.

Driftwood, Okla.—The Driftwood Co-op. Exchange is building a 25,000-bu. elvtr. here. The Choctaw Grain Co. is talking of rebuilding the house here. At present the grain firms are the Driftwood Co-op. Exchange, the Choctaw Grain Co. and the Kansas Flour Mills.—Kansas Flour Mills, L. McGlassor, mgr.

OREGON

Enterprise, Ore.—Fire broke out in oil tank across the railroad track from warehouse. Owing to efficient work of the fire dept. the loss was not much damage done except to the roof. We are also operating sacked grain warehouse at Joseph, Evans, Wallowa, Flora and Paradise and a flour mill at Lostine.—Wallowa Milling Grain Co.

PENNSYLVANIA

Trexler, Pa.—A. D. Trexler's Sons, grain merchants, have applied for membership in the Commercial Exchange.

Washington, Pa.—The Farmers Milling Co. of which A. A. Lacock is mgr., is contemplating the erection of an elvtr. in the spring.

Marion, Pa.—The retail grain, coal and lumber business of the Marion Warehouse Co. recently passed into the hands of the Marion Elvtr. Co.

SOUTH DAKOTA

Wessington Springs, S. D.—The Wessington Equity Exchange is not located here as reported. I think it is at Wessington which is about 10 miles from here.—Jerauld County Farmers Union, J. H. Creighton, mgr.

SOUTHEAST

Cochran, Ga.—A grain elvtr. is being erected here.

Newport News, Va.—Mail addressed to Les Bros., Inc., is returned marked "Left City."

Sylvester, Ga.—The Hall Milling Co. recently installed a Hall Signaling Grain Distributor's elvtr.

Bluefield, W. Va.—Mail addressed to Rect Barham & Taylor, Inc., is returned marked "Unclaimed."

Talladega, Ala.—Mail addressed to the Alabama Feed & Grocery Co. is returned marked "No such firm here."

Birmingham, Ala.—In addition to other changes made in the W. M. Cosby Flour & Grain Co., L. A. Brooks has been made sales mgr.

Birmingham, Ala.—Chas. A. Jones Flour & Grain Co. recently incorporated for \$100,000. Incorporators, C. A. Jones, Sr., Lena Jones and A. Jones, Jr.

Birmingham, Ala.—The Alabama Flour & Grain Co. incorporated; capital stock, \$21,000. Pres., J. W. Davenport, vice-pres., C. B. Taylor, sec.-treas., S. J. Hollock.

Columbia, S. C.—B. R. Cooner & Co., who recently returned here from Memphis, Tenn., are now specializing as wholesale brokers in corn, oats, hay and mill products.

Norfolk, Va.—The proposed \$5,000,000 bond issue for the purpose of erecting a grain elevator and constructing a new terminal will be voted upon at an election to be held some time in January or early February.—J. H. Cofer & Co., Inc.

Birmingham, Ala.—Loebe, Gray & Adams recently succeeded the Loebe-Gray Distributing Co. W. A. Adams, a member of the new firm, was formerly connected with the Tennessee Mill & Feed Co. as vice-pres., and Mr. Loebe was at one time with the Scott County Milling Co. of Sikeston, Mo.

TENNESSEE

Memphis, Tenn.—L. C. Wade of John Wade Sons recently applied for membership in the Merchants Exchange.

Hohenwald, Tenn.—The plant of the Hohenwald Milling Co. was burned on Dec. 3, causing a loss of \$12,000, only half of which was insured.

Memphis, Tenn.—The Merchants Exchange recently bot for \$300,000 the half interest of the Cotton Exchange in the Exchange Bldg. which are two organizations established together about 10 years ago.

Memphis, Tenn.—A large reinforced concrete grain elevator is being completed here by E. E. Anderson, formerly of Covington. The elevator is 10x40 feet, containing 24 bins, and it has a capacity of 80,000 bus. In addition to the elevator there has been built a corn shelling and drying plant, and a sulphur bleacher for oats, with a capacity of about 2,500 bus. an hour. The entire plant is 300 feet in length. It is conveniently located on the Illinois Central and belt line.

TEXAS

Paris, Tex.—S. M. Schleicher has removed to Valde.

Tulsa, Tex.—We had a new addition built to our elevator.—W. C. Cowan Grain Co.

Higgins, Tex.—Improvements are being made in the elevator of the Great West Mill & Elevator Co.

Texarkana, Tex.—The Clark-Lynn Grain Co. is decreasing its capital stock from \$60,000 to \$45,000.

Jacksboro, Tex.—The Jacksboro Mill & Grain Co. is increasing its capital stock from \$30,000 to \$60,000.

Wellington, Tex.—The Wichita Mill & Elevator recently sold. It is not running at present.—J. L. Brooks, Brooks Grain Co.

Sweetwater, Tex.—Mail addressed to the West Texas Grain Co. is returned by the P. O. department marked "Out of Business."

Wichita Falls, Tex.—We have sold our elevators at Wellington and Dodsonville, Tex., to J. B. Stevenson, who will operate at those points next season.—J. C. Mytinger Grain Co.

Littlefield, Tex.—Phelps W. Walker recently purchased the business known as the H. G. Tolbert Grain Co., and will hereafter conduct it under the name of the Walker Grain Co.

Amarillo, Tex.—A 100,000-bu. grain elevator will be erected here by the Lester Stone Grain Co. and the U. S. Strader Grain Co. who have already purchased the site on which to build.

Sweetwater, Tex.—The Sweetwater Milling Co. has incorporated for \$80,000; incorporators, E. W. Sandifer, F. V. Blesse, Jr., and N. C. Davis. Mr. Sandifer bot the elevator, and mill not long ago.

Hereford, Tex.—The Whitewright Mill & Elevator Co. of Whitewright is to be operated by Ralph Barnett of this city, who has traded his home in Whitewright together with some property in Texas and Oklahoma, for the elevator.

Galveston, Tex.—According to John Sealy, pres. of the Galveston Wharf Co., the storage capacity of the company is to be enlarged 1,452,000 bus. in connection with elevator "B." Forty reinforced concrete bins with a capacity each of 32,300 bus. are also to be erected which will have interspaces of 8,000 bus. capacity each. The original capacity of elevator "B" was about 600,000; with the erection of the bins, the capacity will be brought up to approximately 2,000,000 bus. J. J. Davis, vice-pres. and general mgr. of the concern, says "This additional storage will be ready for use by the time the new crop of wheat is ready to move." The structure will be built by the Southwestern Engineering Co.

WASHINGTON

Seattle, Wash.—Mail addressed to F. M. Fairbanks & Co. is returned marked "Unclaimed."

Spokane, Wash.—The main offices of the Northwest Wheat Growers will be moved to Portland, Ore., some time in January or February.

Seattle, Wash.—The Port Commission has approved a renewal of the contract of the Gray-Rosenbaum Grain Co. for the lease of the Hanford Street Elevator.

WISCONSIN

Green Bay, Wis.—Green Bay Grain & Feed Co. incorporated for \$20,000. Incorporators, H. W. Keys, C. P. Coy, J. D. Bassine.

Racine, Wis.—The new 120,000 bu. elevator of the Horlick's Malted Milk Co. is rapidly nearing completion. Grain is received by wagon dump as well as car unloading sink.

New Richmond, Wis.—The erection of a new elevator will be commenced in the spring by the Gallagher Grain Co. which will take the place of the one which burned the latter part of November.

MILWAUKEE LETTER.

J. J. Heffernan was recently elected a member of the Chamber of Commerce.

The membership of Burton Joseph in the Board of Trade is to be transferred to E. F. Morris.

The Smith Milling Co. operating an elevator and feed mill, recently increased its capital stock from \$100,000 to \$150,000.

Want Another Dose of Government Control.

The Farmers National Council announced Dec. 10 that it will ask congress to revive the Grain Corporation, and to give a governmental guarantee of a reasonable profit on wheat and safeguards against profiteering.

The end sought is to obtain "stabilization" of the price of wheat at around \$2.50 per bu. Why not enact a law requiring country elevator operators to pay growers \$1 per bushel for new wheat each year and permitting them to sell wheat at \$2.50 a bushel when they can get it?

Some of the impractical schemes presented by the Farm Bureau leaders are real wonders in the world of business.

Overloaded Motor Fires Plant.

A fire in the elevator of the Larabee Flour Mills Corporation, at Coldwater, Kan., apparently was caused by an overloaded motor. The inspector who adjusted the loss, said the plant had one leg 50 ft. high, and driven by a 7½-h.p. motor. Later, an air compressor to operate the dump was added. This required at least 2 h.p. and the combination was more than a 7½-h.p. motor could pull. There was trouble several times, and finally it refused to pull the load.

The elevator was stopped at 1 p. m., and the fire started at 8 p. m., in or around the motor, which was on a platform in the badly crowded cupola, and so located that it was difficult to give it proper attention. The adjuster classified it as a fire caused by a hot box in the motor or an electric burn out, and said that if the fire had been given an additional 10-minute start the plant would have been a total loss. The moral would seem to be—Don't overload a motor; it may kick.

Brush Motors Should Be Enclosed.

A lesson for elevator owners and builders may be gained from the report on an insurance adjuster who examined the plant of the Farmers Elevator Co., Calamus, Ia., after a recent fire.

The plant itself is of fire resistive material and has a cupola floor of concrete. The motor which furnished power for some of the machinery was of a type fitted with a commutator and brushes, using single phase current, and it was located on a frame platform. This platform was of 2x6 material, extended 12 ft. above the cupola floor, and had 1-in. boards across it at the top for the motor to rest on.

The motor had been running continuously all day and no trouble was noticed. About 5 p. m. the elevator man went to the cupola to close the windows, and he saw no sign of fire. Afterward, a few more loads of grain were received and the machinery was run about 45 minutes after his trip to the top.

The next morning about 7 a. m., the elevator man opened the house and went to the cupola to sweep out and to oil the machinery. Arriving aloft, he found the upper portion of the house filled with smoke. He opened a window to get light and the draft caused the fire to blaze; but by promptly closing the window and using a bucket of water he extinguished it.

The motor was found on the cupola floor, having fallen the 12 ft. from its position on the platform, and the latter was badly burned. A railroad crossing watchman reported having heard the noise of a falling object about 1 a. m. The adjuster formed the opinion that sometime during the previous day dust got between the brushes and the commutator, was ignited, and fell to the dust on the platform. Here combustion started, but it smoldered until sometime during the night when it gained sufficient headway to burn the platform and let the motor fall.

He drew from his experience with this case the lesson that all brush type motors should be enclosed in approved manner regardless of the type of elevator construction; and that a close inspection of all machinery should be made at closing time. He gave it as his opinion that the plant would have been a total loss if it had been a frame building.

FINLAND, for some time to come, must look to North and South America for its grain supplies, according to a recent report of the U. S. Consul at Helsingfors. This offers an excellent opportunity for American dealers to supply the market, and to establish permanent relations with importers in Finland, altho in the case of flour the demand is generally for a coarser grade than that milled in the United States. Grain is no longer imported by the government but by private firms. The usual method of payment is that of settlement at Helsingfors against a bill of lading in a bank there.

Books Received

THE LAW OF SUPPLY AND DEMAND AND THE WHEAT MARKET, by James E. Boyle, Ph. D., analyzes briefly but comprehensively the factors of supply and demand and their effect on the price of wheat. It is pointed out that the demand for and the supply of wheat are never constant, but that both are indefinite and normally subject to sudden fluctuations. The analysis by this author shows, moreover, that some of the factors controlling supply and demand are not subject to the will of man and that the work of the market in registering a fair price, reflecting supply and demand, is not a simple matter. Sixty-three pages; with numerous tables and charts.

Feedstuffs

PINGREE, N. D.—The feed mill of Carl Fades burned recently.

COLUMBIA, S. C.—The Reliable Feed Co. has been established by W. R. and F. S. Bishop.

DERBY, KAN.—J. Thurm has erected a building in which he will install feed grinding machinery.

A MIXTURE of chopped milo heads and cottonseed meal is being experimented with as a cattle feed in Texas.

MINNEAPOLIS, MINN.—The Viehman Grain Co. has bought the feed mill and elevator of the Culbert Milling Co.

HAMBURG, IA.—Chas. Zanker has bought the feed business of J. R. Strader and plans to install a feed mill soon.

HAGERSTOWN, MD.—The Federal Milling & Refining Co. is building a new feed plant.—Stevens Bros., Midvale, Pa.

THE ANNUAL convention of the Mutual Millers & Feed Dealers Ass'n will be held in the Hotel Statler, Buffalo, Jan. 20.

NASHVILLE, TENN.—The capital stock of the Nashville Mill & Feed Co. has been increased from \$100,000 to \$175,000.

TIPTON, GA.—The Central Grocery Co. has again placed its feed mill in operation, and it is probable the company will build an elevator.

BROWNSTOWN, IND.—The Jackson County Co-op. Elevator Co., which operates a hominy mill at Seymour, has bought a feed mill here.

THE WORD "Veribest" has been registered by Samuel Preston Davis, Little Rock, Ark., for use with cattle and stock feed under No. 148,757.

"ALFALMO" has been registered as a trade mark for horse and cattle feed by the Omaha Alfalfa Milling Co., Omaha, Neb., under No. 149,095.

NEENAH, WIS.—A feed business will be conducted by the W. J. Durham Lumber Co., using the plant it recently bought from the Community Mill Co.

WAURIKA, OKLA.—George L. Dodgett has bought the feed mill of the Waurika Feed & Produce Co., and will continue the business under the same name.

STERLING, ILL.—L. C. Stormes, formerly with the Hawkeye Feed Co., of Clinton, has engaged in the feed business here as the Sterling Flour & Feed Co.

KENOSHA, WIS.—The Peter Jacobs Feed Co. is doubling the capacity of its feed plant, thru which will be handled a general line of mixed feeds and other grain products.

"OPTIME" has been registered as trade mark No. 142,523 for use with feed composed of corn, oats, bran, cottonseed meal and salt by Pease & Dwyer Co., Memphis, Tenn.

BELLEVUE, WASH.—The Midlakes Grocery & Feed Co. is building a feed mill, which, when completed, will manufacture chick feed, all kinds of poultry feeds and dairy feeds.

PENNSYLVANIA has changed its feed laws and a brand tax of \$25 is now required. The percentage of fiber permissible in certain kinds of feed has been increased from 11% to 12.1%.

TARKIO, MO.—I have sold my elevator to P. R. Low and J. A. Christensen, owners of the Tarkio Molasses Feed Co., here who will operate it in connection with their business. They will take possession Jan. 1. Low & Christensen bought the interest of H. A. Schmidt in the Tarkio Molasses Feed Co., and the plant will be operated under the name of Low & Christensen. They are retaining their interest with Mr. Schmidt in the Kansas City plant.—J.B. Shaum.

THE WORDS "Elm City" have been registered as trade mark No. 149,322 for use with dairy rations, stock feed, poultry feed and other grain products by the Merrill & Mayo Co., Waterville, Me.

A DRAWING of a butterfly with the word "Butterfly" above and "Fine Feed" below, has been registered as trade mark No. 150,206 for use with dairy feed by R. M. Stegall, Chattanooga, Tenn.

MINNEAPOLIS, MINN.—A plant that will manufacture a general line of mixed feeds has been placed in operation by the American Linseed Co. Linseed meal will be used in many of the feed formulas.

COVINGTON, TENN.—We are installing feed and corn mill machinery and will use an oil engine, probably a F-M, type "Z." Our plant is ready except the engine. We will use a tractor until our permanent engine is installed.—Hagner & Owen.

BRIGHTON, COLO.—Suit has been filed in the federal court by the Farmers Alfalfa Milling Co. against the Union Pacific R. Co. asking \$18,935.77 damages for the burning of its mill Oct. 17. The petition states the fire was started by sparks from a locomotive.

FINANCIAL PHASES of feeding experiments are presented graphically in bulletin No. 234 of the Illinois Experiment Station. The information contained in the bulletin is designed to enable other feed experimenters to use similar methods in studying the results of their work.

HUNTSVILLE, ALA.—Fire recently destroyed the cottonseed cake mill and warehouse and the flour mill of the Spring City Milling Co. The fire, which started in the flour mill, caused a loss of \$120,000 to the property of the company. The mill had only recently been completed to replace one burned in 1920.

FT. WORTH, TEX.—The Scott Grain & Hay Co. recently sold the Southland Milling Co. to four Dallas men, R. F. Duggan, R. J. Coke, M. O. Andrews and E. C. Sleight. Up to this time the Scott company has been dealing in stock feed and has been retailing grain. It is now preparing to manufacture prepared chicken feed, to be distributed to wholesalers. The business will be conducted under the name of the Universal Mills. Mr. Andrews has been appointed as mgr.

EVERETT, MASS.—The New England Stock Feed Co. has been organized with a capital stock of \$50,000 and will establish an extensive grain and feed business in this city. The incorporators are William W. Butman of Lynn, Mass., Maj. Gen. E. Leroy Sweetser of Everett, John E. Stevens of Brookline, Mass., and Louis E. Boutwell of Malden, Mass., president of the Malden Common Council. Messrs. Burman and Stevens are already interested in other grain enterprises in this state.—S.

CHICAGO, ILL.—Sherman T. Edwards, who has been vice-pres. of the Consolidated Products Co., has severed his connection with that organization and organized the firm of S. T. Edwards & Co., taking over the dried buttermilk dept of the Consolidated Products Co. Mr. Edwards has been engaged in the feed manufacturing business for many years, formerly with Edwards & Loomis, later with Hales & Edwards and on the Pacific Coast, and still more recently in the position he has just left.

INDIVIDUALS connected with T. W. Keelin & Co., charged with defrauding customers by short weighing grain and feedstuffs over a series of years, have been ordered to make restitution of amounts totaling nearly \$100,000. Thomas W. Keelin, head of the organization, is to make restitution of \$35,000; Wilbur Keelin, \$8,000; Robert Domke, a salesman, \$5,000; and Joseph Klustina and Neil J. Burnett, teamsters, \$1,000 each. The Keelins have already paid about \$50,000, and the above amounts are in addition to this.

Texas Grades for Grain Sorghum Heads.

The Commissioner of Markets and Warhouses of Texas has promulgated standards for the grading of grain sorghum heads, become effective Jan. 1.

Under the standards five numerical grades and sample grade are established, and provision is made for appropriate class designations to include kafir, feterita, milo, other grain sorghums, and mixed grain sorghums.

The requirements for the numerical grades of all classes are identical and are as follows:

No. 1 shall be heads that are dry, of good color, sound, sweet and heavy well matured grain. May contain not more than 2% of discoloration or stain. Not more than 10% of stems shall be over 5 in. in length from base of head.

No. 2 may be slightly stained and contain 5% of other grain sorghums, but must be dry, sound, sweet and of heavy well matured grain. May contain 2% of blight or immaturity. Not more than 10% of stems may be over 5 in. in length from base of head.

No. 3 may be stained or discolored and 10% of other grain sorghums of which 3% may be non-grain sorghums. Must be dry, sound, sweet and of heavy well matured grain, but may contain 10% of immaturity, blight or damage. Not more than 10% of stems shall be over 5 in. in length from base of head.

No. 4 may contain 15% of other grain sorghums of which 5% may be non-grain sorghums and may be badly stained or weathered. May contain not over 10% damage and not over 15% immaturity or blight. May be musty but must be cool.

Sample grade may be heads that are heating, fire burned, infested with live weevil, or otherwise of distinctly low quality and not good enough to comply with the requirements of a numerical grade.

Deny Injunction on Stockyards Act

Petition of the National Live Stock Exchange and the Chicago Live Stock Exchange for a permanent injunction restraining the government from enforcing the provisions of the Stockyards Act was denied Dec. 20 by Federal Judges Landis, Evans and Fitz-Hugh.

The Act became effective Nov. 1 and a temporary injunction had been granted by Judge Landis but the permanent order was denied. Attorneys for the petitioners announced their intention to ask the Supreme Court for a ruling on the constitutionality of the Act.

In denying the injunction, the judges said: "The stockyards are distinctively employed in interstate commerce and are as indispensable to it as cattle cars, engines and rails."

Elevator Rivalry at Baltimore.

Men who labor with good tools are proud of those tools and of the results they are able to achieve with them. This trait of human nature has resulted in a display of friendly rivalry between the operators of grain elevators at Baltimore, Md., and this, in turn, has brought about some excellent records in the speed of grain handling.

The matter has gained the attention of contributors to Baltimore newspapers, and recently the following communication appeared in the Sun:

Some weeks ago you had an article in your paper about the Western Maryland Railway grain elevator setting a world's record of unloading 178 cars of grain and loading 350,000 bushels on board a vessel in 24 hours.

I think that the person who sent in that article did not know much about the outside world. He must have meant his own little world at Port Covington. If he had the time and cared to see a real grain elevator we would be glad to show him one where records are made and broken every day.

The elevator that I have reference to is the concrete elevator of the Pennsylvania Railroad Company at Canton. Not long ago this elevator loaded 420,000 bushels of grain into three vessels at one time in 10 hours. Just the other day we loaded 16,000 bushels of grain on a ship in 3 minutes.

As for unloading cars, we can unload 175 cars of grain in 10 hours running full capacity. A short while ago we unloaded one car in five minutes. We have four dumpers that all running together can unload four cars in five minutes. One of the dumper operators the other day unloaded 15 cars in the small space of time of 1 hour and 55 minutes.

In fact, we make records so often at our elevator that it would be too much trouble to be putting it in the paper every time we make one.

Supply Trade

Schuyler, Neb.—The Ryan Construction Co. has removed its office to 3159 Curtis Ave., Omaha.

A combination mirror and paper weight carrying the greetings of the Cyclone Blow Pipe Co. to the trade.

Date cards for 1922 to fit the "Eureka" desk calendar are being sent to members of the trade by the S. Howes Co.

"Kennedy's" has been registered as a trade mark for use with car liners and other articles made of paper by the Kennedy Car Liner & Bag Co., Shelbyville, Ind.

Chicago, Ill.—E. Lee Heidenreich, Jr., formerly with the Kansas City office of the Burrell Engineering & Const. Co., will, until Feb. 1, be chief engineer at the company's office here.

Chicago, Ill.—F. A. Brazelton has succeeded J. H. Irwin as manager for the O'Gara Coal Co. Mr. Irwin resigned the position to accept a similar office with the Harrisburg Colliery Co. Mr. Brazelton, in turn, was succeeded as assistant sales manager for the O'Gara Coal Co. by J. C. Woods.

A circular device enclosing the letter "B" printed upon a background of specified shape, and around which is arranged the word "Buhler," the whole being surrounded by a wide ring of black, has been registered as trade mark No. 136,781 by Gebruder Buhler, Uzwil, Switzerland, for use with grain handling, processing and other machinery.

Nephi, Utah—Judgment was rendered in favor of the Levan Mill & Elevator Co. in its suit against the Midget Marvel Mill Construction Co. for alleged failure to construct the machinery of a mill built for the plaintiff according to contract. A difference of about 200 bbls. in the daily capacity of the mill was alleged thru difference in the size of certain machinery installed.

Milwaukee, Wis.—Charles R. Decker, who has been vice-pres. and gen'l manager of the Milwaukee Bag Co. for several years, has been elected pres. and treasurer to succeed the late Franklin P. Mann. E. C. Bennington, formerly in charge of the Toledo office, was elected a vice-pres., as was Willis McFeeley, who was Chicago sales manager. The company has recently completed a new plant and office building.

Ashland, Ky.—The American Rolling Mill Co. has bought the property and assets of the Ashland Iron & Mining Co., which includes all the stock of the Ashland Coal & Iron Ry. Co. The value represented by the property is about \$5,000,000, and with the combination of the other plants of the American Rolling Mill Co. and its iron and coal fields, will form an industrial unit having about \$55,000,000 total assets and a very substantial surplus.

Washington, D. C.—The Supreme Court of the United States Dec. 19 decided against the American Hardwood Manufacturers Ass'n in the suit brought by the Department of Justice to force the Ass'n to abandon its co-operative selling methods, based on the open price plan. Judge Clark said the effect of the plan was to restrict production and increase prices. In view of this decision the decision of the lower court in Chicago in the linseed oil case may be reversed on appeal.

GRADE standards for various farm products are to be established by the Markets and Warehouse Dep't of Texas, according to announcement made by Commissioner Baughman following the recent conference at Lubbock to consider grain sorghum grades. After the standards are established, the state agricultural college plans to conduct short courses in grading the various products.

UNLESS the purchasing power of the people of Europe is increased they cannot buy grain produced on American farms, according to Vilas H. Strawn, chairman of the board of directors of Montgomery Ward & Co., who recently returned from a trip abroad. He said the most enthusiastic people he saw there were the Czechoslovakians, where they are still exuberant over their independence.

Grain Dust Explosions, Their Causes and Prevention.

[Continued from page 853.]

rise at this point hangs close to the belt and follows the belt in the direction the grain is being carried. There is a large amount of dust lost at the elevator boot, also chaff spillage. The small amount of dust which is raised when the grain falls on the conveyor belt also reaches this point.

The drawing reproduced herewith shows the elevator boot and the belt conveyor discharge. It also shows exhaust hoods of a special design for carrying away the dust and chaff spillage as it is freed from the grain.

Grain is hurled from the belt, striking the back plate of the conveyor and freeing dust. This dust carries out through the hood, but much of the chaff adheres to the belt as it passes from the discharge pulley and is carried down between the belt and the lower part of the discharge boot, spilling the chaff on the floor where, if it is allowed to take its own course, will build up in dangerous quantities even to such an extent that the belt will rub the accumulation of the chaff producing sufficient heat to start a flame.

The tangential exhaust hoods shown at the top and bottom of the conveyor discharge are for the purpose of collecting the dust and chaff which at the present is going away from the conveyor discharge. These hoods will not draw any additional air through the grain. They will only catch sufficient air to keep the dust and chaff from escaping into the building or on the floor. The special construction of this hood is of considerable importance. The air enters the exhaust hood at a tangent to the body of air already in the hood causing a swirling action within the hood identical to the action of air being handled in a round duct—that is spirally in the direction of the flow, reducing the entrance loss and equalizing intake of air thruout length of the hood.

The hood is approximately the same size as the exhaust pipe discharging the hood. On account of the tapering of the hood a uniform velocity is maintained thruout its entire length, eliminating a possibility of clogging. This hood can be installed in very limited space.

The scale and scale garner can be vented by the type of vent that has already been approved by the Weighmasters; the tangential hood can be applied to conveyor belts which are fitted with trippers to collect the chaff which is carried over the point of discharge by the belt; and there may also be installed a system of air piping to exhaust dust from cars while they are being unloaded. The latter will make conditions in the car more satisfactory for the workmen who handle the car shovels. Floor sweeps should also be provided, and connected with the dust collecting system, to remove dust which accumulates on floors.

Dust Piping: The best practice in the design of exhaust piping is to make the bottom of the pipe straight, the enlarging and reducing cones tapering on the sides and top and thus eliminating pockets into which the dust could settle. Branch pipes should enter main lines at the enlarging cones and on the sides of the pipe at an angle not greater than 45 degrees to the center line of the main duct. Ample cleanout holes should be specified and capped dead.

If these few points are carried out in the erection of a dust exhaust system and the areas of the pipes are properly proportioned, and the exhauster operated at the correct speed ideal results will be obtained. There is nothing complicated about an exhaust system, but it is the most abused equipment in a plant both from the standpoint of not receiving the proper engineering service when it is installed and also from the standpoint of maintenance after it has been installed.

Roof ventilators should be used for many exhaust conditions, and where natural draft is sufficient to discharge the dust the installation of a fan is an extravagance.

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A. B. C. Improved 5th Edition, contains a complete set of five letter code words for every expression in the former edition. Any two of these words may be combined and sent as one word, reducing telegraph tolls 50 per cent. Price in English, \$18.00.

Miller's Code (1917), for milling and flour trades, 3½x6 inches, 77 pages, \$2.00.

Riverside Code, fifth edition, for millers and flour dealers. Bound in flexible leather, 228 pages, \$3.00.

Baltimore Export Cable Code, most popular and simplest code for export trade. Bound in red leather, third grain edition, 413 pages, size 7x9½ inches, \$15.00; fourth edition, for grain, stocks, bonds and general merchandise, 160 pages, 6¼x9 inches, \$15.00.

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Your Name in gilt letters stamped on front cover of any of the above books for 35 cents extra. Any code upon short notice.

Grain Dealers Journal

309 S. La Salle Street,

Chicago, Ill.

Seeds

ST. LOUIS, MO.—The Lawrence Seed Co. is continuing the business of the Schisler Seed Co.

THE semi-annual meeting of the Western Seed Dealers Ass'n was held at Kansas City, Dec. 10.

YUMA, ARIZ.—The Delta Seed & Feed Co. is installing machinery for cleaning grass and field seeds.

OSHKOSH, WIS.—The H. P. Schmidt Milling Co. has leased the 45,000-bu. elevator of the Pedigree Seed Co.

ST. LOUIS, MO.—A fire occurred recently in the plant of the Kaercher Seed Co., doing damage of about \$5,000.

PLYMOUTH, IND.—The Forbes Seed Co. has bought ground upon which to erect a plant for handling seeds and feeds.

BALTIMORE, MD.—A final dividend of 18.1375% has been declared by the referee in bankruptcy of J. Bolgiano & Son.

THE MID-WINTER meeting of the Wholesale Grass Seed Dealers Ass'n will be held in the Hotel Secor, Toledo, O., Jan. 26.

ARTIFICIAL drying of seed corn is beneficial, it has been shown by experiments conducted at University Farm, St. Paul, Minn.

ACREAGE of sudan grass in Nebraska was increased 10% to 25% this year over last, and the yield was correspondingly greater.

ORANGEBURG, S. C.—The plant of the Fairey Seed & Grain Co. was almost destroyed by a recent fire. Damage of \$10,000 resulted.

EVANSVILLE, IND.—A dividend of 10c on the dollar has been ordered paid to creditors of W. H. Small & Co., who failed some time ago.

HAGERSVILLE, ONT.—The plant of the Canada Seed Co., together with about 4,000 bags of various kinds of seeds, was destroyed by fire.

A HEARING on freight rates applicable on seed grain for planting was held recently at Atchison, Kan., by the Interstate Commerce Commission.

YUMA, ARIZ.—The Alfalfa Seed Co. has increased its facilities for handling and cleaning seed, adding two Model 29-D Clipper Seed Cleaners.

PRINCETON, IND.—The Berger Seed Co. has been organized by J. G. Berger, who was formerly with the Ohio Valley Seed Co. at Evansville.

AN EXPERIMENT near Cotter, Ark., in the use of sulphur as a fertilizer for soil on which alfalfa is being grown is said to have shown good results.

CROOKSTON, MINN.—The Minnesota Seed Growers Ass'n has been incorporated with capital stock of \$5,000 by W. E. Casselman, E. R. Clark and others.

CERTIFICATION of 55,000 bus. of small grain seeds, the greater portion being Iowa oats, has been accomplished by the Iowa Agricultural Experiment Station during the year.

IDAHO FALLS, IDA.—A receiver has been appointed for the U. S. Beet Seed Co. Assets are said to be ample to care for the Company's liabilities, if they can be collected.

CLARINDA, IA.—We have completed all the buildings we started after the fire and now have a larger and better plant than the one destroyed. We erected a combined elevator and cleaning plant, 28 by 50 ft.; one tile storage building, 40 by 90 ft., with two stories and basement; and replaced about 100 ft. of our three story brick building which burned. Our offices are located in the latter. We are now prepared to handle all business which may come our way and the outlook is far more promising than it was a year ago at this time.—A. A. Berry Seed Co.

THE ANNUAL Winter Corn Show will be held at the Agricultural College, Lincoln, Neb., Jan. 3 and 4. Premiums are offered for wheat, oats, rye, and barley, in addition to corn.

SAN FRANCISCO, CAL.—On Dec. 1 there remained in the state of California 1,519,102 sacks of beans.—Henry C. Bunker, chief grain inspector, San Francisco Chamber of Commerce.

SEEDS will not be given free by members of congress during the fiscal year 1923 if General Dawes, director of the budget, has his way about eliminating the appropriation for that purpose.

SEED GRAIN samples will be furnished free again this season by the Central Experimental Farm, Ottawa, Ont. Only one sample is allowed each applicant, and Feb. 1 is the final date for obtaining application forms.

BEMIDJI, MINN.—John W. Rodekuhr has retired as vice-pres. and local manager of the Courtney Seed & Feed Co. H. F. Ruber, sec'y, and Wm. J. Courtney, pres. of the company, bought Mr. Rodekuhr's interest.

A RED SEAL of conventional type, with the words "Red Seal" printed thereon, has been registered as trade mark No. 151,631 by the Hairy Peruvian Alfalfa Seed Growers Ass'n, Yuma, Ariz., for use with alfalfa seed.

MECHANICSBURG, O.—The Wing Seed Co. will be continued under the direction of the present receiver, D. J. Burnham, who will select an active sales manager. A recent meeting of creditors rejected a plan for reorganization.

GRAND JUNCTION, COLO.—R. B. Dessert, formerly with the Albert Dickinson Co., Minneapolis, and more recently with A. E. McKenzie, Ltd., Brandon, Man., has bought an interest in the Grand Junction Seed Co., and will remove here.

THE SEED laboratory at the Texas Agricultural Station, College Station, Tex., has been reopened. The laboratory is conducted by the U. S. Dep't of Agriculture and makes seed analyses for persons in Texas, Louisiana, Alabama, Mississippi and Florida.

WINNIPEG, MAN.—The flaxseed crop for 1921 is estimated to be 4,981,000 bus. This includes the provinces of Manitoba, Saskatchewan and Alberta. On Dec. 14 farmers held 1,000,000 bus. of flaxseed.—M. Snow, sec'y Northwest Grain Dealers Ass'n.

PARIS, ILL.—The Edgar County Seed Co. has bought the business of the Edgar County Seed Ass'n, formerly operated as a branch of the country farm buro. M. J. Money, who is interested in the Edgar County Seed Co., was formerly a partner in T. F. Money & Son, of Newton and Yale, Ill.

From the Seed Trade.

FERRIS, ILL.—The crop of clover seed in this section was short and it was damaged by wet weather. All of it has moved from the farmers' hands. There will not be enough seed here to supply western Illinois, while we usually have a surplus. We produce no alfalfa seed, and alsike is limited.—J. W. Richards.

TOLEDO, O.—What about seeds? Here's the situation: Europe is short! America is short! Eighty per cent of our crop is already marketed. No burdensome stocks East, West, North or South. Toledo has 21,000 bags of clover. Last year she shipped 55,000 bags. And this season's shipping demand YET to come. How to supply the demand, and at what price? is the absorbing question.—The Crumbaugh-Kuehn Co.

Smooth Seed Corn Not Objectionable.

Smoothness in corn kernels, contrary to popular opinion, does not indicate deterioration or reduced yielding capacity, according to experiments conducted at the Kansas Experiment Station and reported by C. C. Cunningham. Continuous selection of smooth and

rather short kernels for four generations increased the average length of ears, slightly decreased the weight, decreased the circumference, number of rows per ear, length of kernel and percentage of shelled grain.

Selection of rough and rather long kernels decreased the average length of ear and increased the circumference, but had no significant effect on the weight of ears, number of rows per ear, length of kernel or percentage of grain.

Labels Required on Seed for Canada

AFTER Dec. 31, all seed exported to Canada must be labeled, under requirements of a law which becomes effective in the Dominion at that date.

The container, whether it be an envelope, a box, bag or in some other form, must be stamped to show the country in which the seed originated.

Failure to comply with the regulations as marking will subject the seed to an additional duty of 10% ad valorem and it will be held in the customs warehouse until properly labeled. This law applies to other goods as well as seeds, and the name of the country of origin must be in English or French. "Made in U. S. A." will be accepted as sufficient to designate the United States of America as the country of origin. Seeds or other commodities ordered before Oct. 1, 1921, may be imported without marking up to July 1, 1922.

Hubam Clover Promises Well.

A paper on Hubam, the annual sweet clover by G. C. Wheeler in the 22nd annual report of the Kansas State Board of Agriculture records the results of many experiences with this new or rediscovered plant. Some of these experiments yielded favorable results, while others were negative or unfavorable, but the conclusion is reached that while there is much speculation about the plant it looks promising. One thing definite that has been learned is that it will not crop with spring wheat as well as with winter wheat. The clover grows too fast for the spring wheat and so much of it is cut off when the wheat is harvested that it does not seed well, if at all.

The place of the new clover as a crop for the honey bee is described as definitely fixed. Bee keepers have grown quite excited about it.

The seed of the annual white sweet clover, while resembling in many ways that of the perennial, can easily be identified. It is somewhat flatter and has a prominent crease extending across the seed from the hilum. This will discourage the substitution of seed of the biennial variety for that of the annual. This is of distinct value, and if there were some method of distinguishing Grimm alfalfa seed from the common variety the superior Grimm would have come into general use much more quickly.

Hubam clover seed is still scarce. The Iowa station hopes to be able to send small quantities of seed to farmers who ask for it. The suggestion is made that it be planted in rows in a garden where the growth can be observed and the seed multiplied. The seed increases rapidly, one man who started with seeds in the spring of 1918 having harvested over 300 pounds in the fall of 1919.

It is hoped that the new clover will prove valuable for seeding in corn at the last working and thus take the place in the corn belt held by the cowpea in the South. There is reason also to believe that it will prove valuable for seeding with small grain in the spring so that when the grain is taken off the clover will make a mass of green herbage which can be plowed under as green manure.

A NUMBER of stock brokers have lost their wire connection recently with the New York Exchange, an investigation of the books of some non-member firms having proved the reported trades to customers at prices different from the actual sales.

Patents Granted

1,398,047. **Bin Gate.** Richard H. Stevens, Philadelphia, Pa. A hopper is provided with an opening, and a closure member is adapted to operate by rolling contact against the material contained in the hopper.

1,397,936. **Rotary Car Dumper.** Geo. N., Arthur M., and Walter H. Simpson, Chicago, Ill. A rotary cage is normally partially supported by a continuously rotating roller, and means are provided for lifting the cage from contact with the roller.

1,397,141. **Device for Separating Seeds.** Frank L. Nourse, Boise, Ida. A device resembling a belt conveyor is combined with means for applying heat, and with a water tank and a stationary brush in such manner as to accomplish the separation of seeds.

1,399,412. **Corn Cleaning and Sorting Machine.** Andrew Sternad, Chicago, Ill. Rollers have spaces between them permitting the discharge of small ears of corn and foreign material between them, while larger ears are held on the rollers; and the larger ears are washed on the rollers.

1,397,898. **Bag Holder.** James B. O'Brien, Hartford, Wis. Vertical adjustable standards are mounted on a base. These standards may be adjusted horizontally to accommodate bags of various widths and vertically to hold bags of various heights, and spreader arms hold the mouth of the bag open.

1,396,916. **Scale and Grain Sampler.** Conrad L. Bennett, Worcester, Mass. A scale casing of triangular shape hangs in a definite position by force of gravity and means are provided to indicate on a scale over which a pointer moves the weight of material placed in the bucket which hangs from the mechanism.

1,396,479. **Bag Tie Seal Lock.** Emil Tyden, Evanston, Ill. A base has a cord runway, a clamping jaw at its opposite end, and a latch adapted at one position to be locked to the base. The base also has a tag receiving slideway and the clamping jaw has a projection which is thrust across the slideway opening to bar escape of the tag.

1,397,279. **Grain Door for Box Car.** Wilfrid Pelineau, Waden, Sask., Canada. A flexible grain door of slat formation slides in a channel guideway, and filler pieces are hingedly mounted in the guideway to be swung into and thereby close the guideway when the door is open. The door is formed in two sections, the lower section being provided with a relief door at its bottom edge.

1,396,621. **Machine for Treating Grain.** Harold L. Breen, Hatton, N. D. An unbalanced or over-weighted drum, by reason of its unbalanced condition, is adapted to turn automatically to draining position when free. It has a compartment for containing a solution and another compartment in communication therewith for containing grain to be treated.

1,399,484. **Car Unloading or Dumping Apparatus.** Edmund M. Hull, Buffalo, N. Y. The rails of a railway track are continued onto a car supporting track, and fluid pressure means is provided for moving the rails simultaneously relatively to the table, one upwardly and the other downwardly to tilt the car sidewise; and there is provision for tipping the car endwise.

1,398,094. **Lock and Seal for Car Doors.** H. H. Duncan and C. C. Willoughby, Philadelphia, Pa. A car door has an opening for receiving a key, a perforated holder on the inside of the door to receive a seal to obstruct the opening, means for retaining the seal within the holder, and a lock on the inside of the door operable by a key inserted thru the opening after the seal is ruptured.

1,399,022. **Grading and Separating Machine.** Sylvester Marshall, Athens, O. A laterally rocking longitudinally inclined screen is suspended at its ends in a suitable support and has plates along its edges to prevent material from falling thru at those points. The mesh of the screen is larger than the greatest transverse diameter of the grain to be graded or separated. Means are provided for locking the screen.

1,398,480. **Weighing Scale.** Rodolphe Wolter, Buenos Aires, Argentina. A receptacle is movable vertically relative to a balancing beam. Means are provided for supplying material to the receptacle, means for temporarily suspending the receptacle from the beam, and automatically releasable when the contents of the receptacle have reached a predetermined weight. On release of the suspending means, the supply of material is automatically shut off.

1,398,275. **Grain Cleaner, Separator and Drier.** Willard A. Petteys, Wilcox, Neb. A trough shaped rectangular chute has upper and lower spaced series of screening members, each having upper and lower parallel inclined guides secured to the inner edges of the chute. Screenings frames of different mesh are supported by the guides. Hinged shutters constitute a floor for the chute and baffle plates for the screens. Either series of screens can be opened independently to regulate the air draft within the chute.

1,398,162. **Grain Cleaning Machine.** Harry S. Stansbury, Ashland, Md., assignor of one-half to C. F. Ensor, Verona, Md. The apparatus has primary and secondary riddles and an intermediate crushing mechanism, to the action of which the grain is subjected subsequent to treatment by the primary and prior to treatment by the secondary riddle. The crushing

mechanism has co-operative yielding faced drums. A hopper directs material to the contacting surfaces of the drums and a vibratory feed spout discharges material into the hopper.

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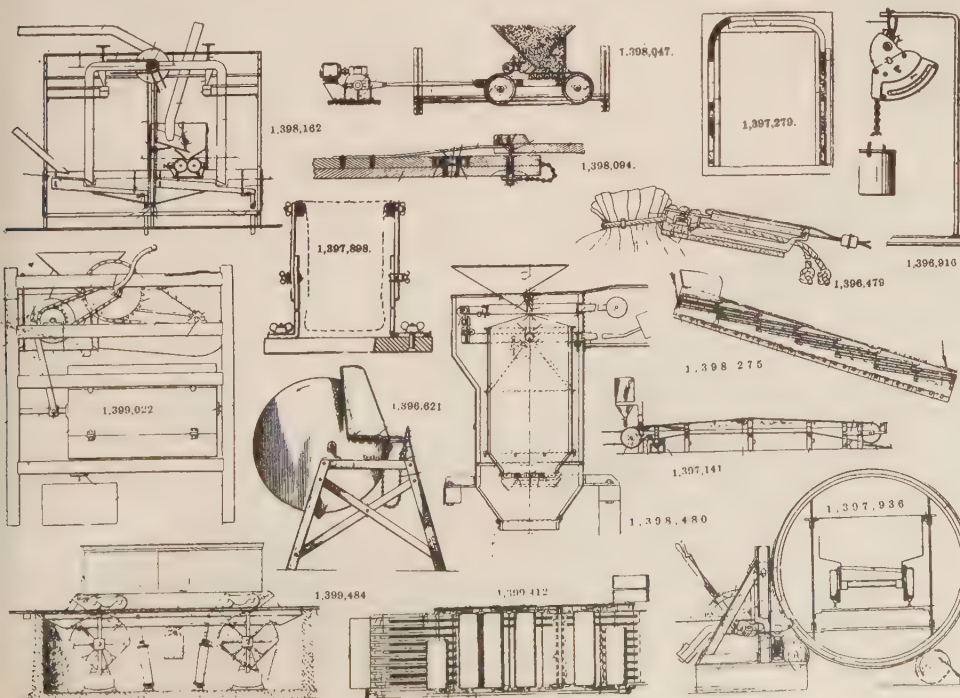
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A New Friction Clutch.

There are many places in a grain elevator where friction clutches are necessary on the power transmission system. Line shafts, cleaners, elevator legs, car pullers, conveyors and practically every form of machine used in an elevator will give more satisfactory and more economical service if it is provided with this means of cutting it off from the power line when it is not needed. Some machines must have a friction clutch to bring them from a state of rest to full speed within a comparatively short space of time without unduly straining the shafting or the driven machine.

A clutch designed to operate under these conditions must be strong enough to handle the load imposed upon it. It must be balanced to eliminate vibration, and the safety of workmen demands that moving parts be guarded. Gripping surfaces should have a high co-efficient of friction, together with good wearing qualities.

A friction clutch which incorporates these requirements to a great extent is shown in the engravings reproduced herewith. It is manufactured by the Link-Belt Company and placed on the market under the name "Twyn-cone," a name coined from its peculiar features of construction.

The exterior view shows that most of the revolving parts are protected by a metal guard, which constitutes one-half of the casing. One of the unusual features of this clutch is the construction of the gripping cones, which can be seen in the cross sectional view. A double cone is mounted in a cast-iron casing, keyed in such a manner as to allow a small longitudinal movement. When the clutch is engaged the double cone adjusts its position so as to equalize the pressure between it and the two single cones which

are brought into contact with the double cone by means of the arrangement of toggles and links.

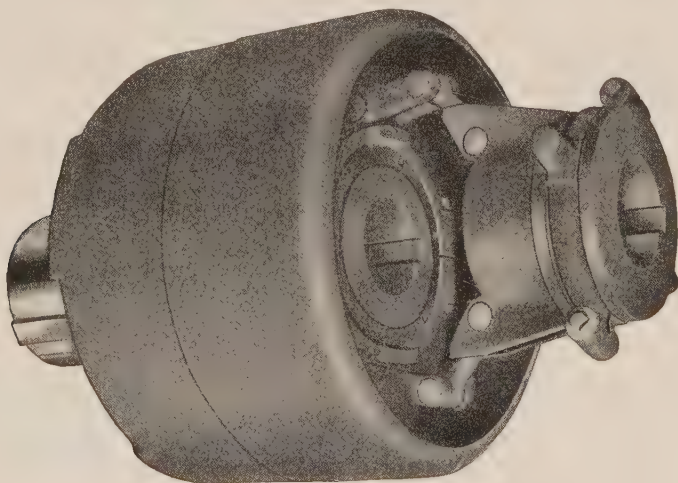
The two single cones are faced with a material with a high co-efficient of friction, while the double cone, or friction ring, is of cast iron. The combination is known to wear well. The only adjustment required to compensate for wear is a slight movement toward the cones of the large adjusting nut shown.

The parts are balanced, and freedom from vibration practically eliminates the possibility of the clutch being engaged or disengaged by action of centrifugal force on the various links and toggles. When the clutch is engaged no end pressure is necessary to keep the cones in contact, as the construction of the operating mechanism is such that the cones are effectually locked.

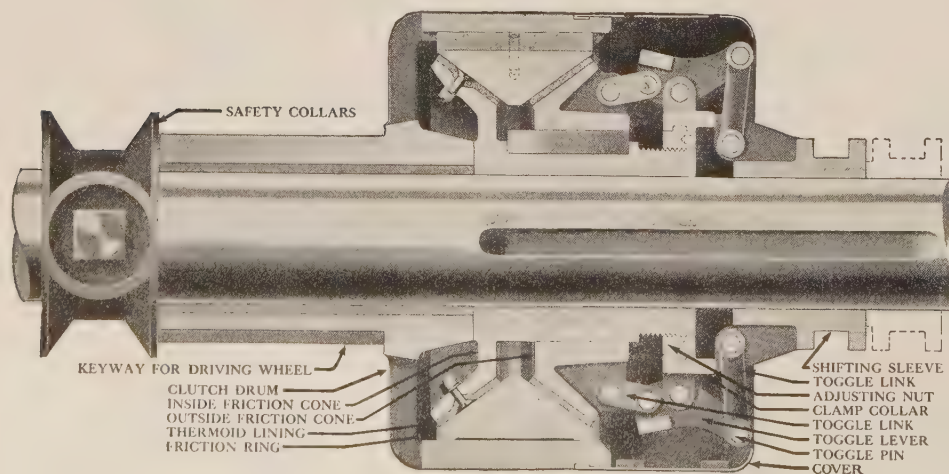
This type of clutch is available in the form of a shaft coupling or as a pulley clutch. In the latter case, it is provided with a longer extension on the drum end to accommodate a pulley.

THIS STORY comes from New York: When a steamer struck an iceberg off Newfoundland recently she was saved from sinking by her grain cargo. In the presence of the water that came thru the hole in the vessel's plates, the grain swelled and stopped the leak.

A REVISION has been made in the area under quarantine for the Japanese beetle, a crop pest. All of the area is in Pennsylvania and New Jersey, and now includes 275 square miles instead of 90 as formerly. Two classes of quarantine have been established, those for areas heavily infested and for slight infestation. The authorities having the matter in charge consider that the beetle may become one of the more serious crop pests of the country.



External View of New Friction Clutch.



Cross Sectional View of New Friction Clutch.

Grain Carriers

BAD ORDER cars on the various railroads were reduced to 320,292 on Dec. 1, as compared with 333,616 on Nov. 15.

REPORTS to some grain handlers recently stated that much of the grain then being delivered at Galveston was of such poor quality that it was being rejected.

THE RECORD for one day's shipments of grain from Fort William and Port Arthur by boat was established this season on Nov. 21, when a total of 3,275,190 bus. moved out.

THE LEGALITY of the clause in bills of lading providing that claims for loss of domestic shipments must be made within 6 months and on export shipments within 9 months was upheld recently by the U. S. Supreme Court.

ELIMINATION of war tax on freight charges and passenger fares will save an immense sum to shippers and travelers. Officials of the Pennsylvania Railroad estimate the saving to users of their lines will total \$15,000,000 in 1922.

ALL WATER freight service between Nashville, Tenn., and New Orleans, La., will be established Jan. 1 by the Mississippi-Warrior Barge Line in co-operation with the Nashville Transportation Co., operating steamers on the Cumberland River.

TRAFFIC at the head of the lakes formally closed the night of Dec. 12. The last steamer out of Duluth was the F. B. Squire with a cargo of rye for lower lake ports. Fourteen ships cleared from various ports, taking 4,500,000 bus. of grain.

A PETITION to vacate the order in the Shreveport Rate Case was filed with the Interstate Commerce Commission by the Texas Railroad Commission recently. The order became effective July 7, 1916, at which time it was opposed by Texas shippers.

THE STEAMER *Aragon*, which grounded recently in Lake Ontario with a cargo of grain has been abandoned to the insurance companies as a total loss. Some of the grain was salvaged, but bad weather made it impossible to take off the remainder.

A SUIT brought by the Brown Coal Co., of Sioux City, Ia., against the Illinois Central Railroad for loss of coal in transit has been decided against the railroad. A car weighed out 5,200 lbs. less than when billed at the mine and the verdict granted the coal company full destination or replacement value for the quantity lost.

GRAIN shipped to Montreal via the Great Lakes and the Lachine Canal this year exceeded the total of 1920 by more than 50,000,000 bus. Corn made the greater increase the quantity this year being 25,404,449 bus., all from the United States compared with only 85,851 bus. last year. The figures for wheat were 27,674,776 bus. in 1921 and 11,648,250 in 1920.

TWO BOAT LOADS of grain were taken recently from Montreal back to Canadian lake ports, something new in grain handling. Earlier in the season the grain went up to Montreal and when navigation closed at the port it was still in elevators. Two boats took the cargoes and they will be unloaded at Buffalo and eventually will be sent to the Atlantic Coast via rail.

FOREIGN Conference shipping lines will no longer recognize the 5c differential between wheat and flour in making rates for ocean traffic in these commodities, and the agreement with the Shipping Board was dissolved, according to announcement made recently. Foreign lines will carry wheat at any price they choose and flour rates will be made to suit their own ideas of differential and tonnage requirements.

A HEARING was held at Chicago Dec. 12 and 13 by Examiner J. Edgar Smith on the application of Northwestern Grain shippers for a readjustment of rates on grain from Minneapolis to eastern trunk line territory. H. A. Feltus showed how the abolition of the overhead rates had injured Minneapolis. J. S. Brown said the proposed rates would create discriminations.

AN ORDER has been issued by the Missouri Public Utilities Commission requiring railroads in that state to make effective on intrastate shipments of grain and grain products the same rates that have been ordered on interstate business to become effective Dec. 27. This has the effect of making intrastate rates conform to interstate rates. Previously, the Missouri Commission had ordered the change made Dec. 10 and the alteration was made to keep the effective date of its order in agreement with that of the Interstate Commerce Commission.

Rail Traffic is Reduced.

For the week ending Nov. 26, the total number of freight cars loaded was 673,827, less than for any week since July 9, and a decline of 288,465 cars from the record week of this year. This high point was established in the week of Oct. 22 when 962,292 cars were loaded.

On Dec. 8, freight cars idle because of business conditions totaled 528,158, compared with 466,376 on Dec. 1, an increase of 72,782 cars. During the week of Nov. 15 to 23 the idle cars averaged but 213,523 daily. There was thus an increase of more than 100% in the number of surplus cars in three weeks.

This reflects the continued slump in business conditions, altho part of the unfavorable showing may be due to seasonal reduction in traffic.

Right of Way Rentals in Illinois.

Frank L. Smith, chairman of the Illinois Commerce Commission, Springfield, Ill., writes:

"In several instances the railroads have asked higher rentals from elevators using their right of way.

"There is no schedule of rates for any use of their right-of-way by any of the railroad companies. The practice is for them to submit to the Commission a separate lease in each, which lease must be approved by the Commission."

South Dakota Commissioners Can Control Ground Rentals.

Grain Dealers Journal: With reference to the rentals paid for warehouse and elevator sites on railroad right of way in South Dakota will say the carriers operating in this state have not made application looking to any change or increase in the rentals paid for such sites.

The law governing the subject matter in this state grants to this Commission jurisdiction to determine a reasonable rental charge where complaint is filed alleging that the railway company and the party desiring the elevator or warehouse site, are unable to agree upon the rental.

Recently we have had considerable correspondence with parties desiring information as to what their legal rights in the matter would be. No formal complaint, however, has been filed or received by us with respect thereto. From the information at hand it appears to us that the carriers are generally attempting to secure leases covering elevator sites upon the basis of a greatly increased rental. Your information apparently supports this view.

Should formal complaint be filed against the carriers operating in this state by interested elevatormen or on their behalf, the matter will receive prompt attention. Very truly, Board of Railroad Commissioners, E. F. Norman, Sec'y, Pierre, S. D.

Supreme Court Decisions

Negligence in Transportation Presumed.—Negligence in transportation will be presumed from arrival of goods at destination in damaged condition.—Hines, R. R. Adm., v. Buchanan. Supreme Court of Appeals of Virginia. 109 S. E. 219.

Measure of Damages for Shortage in Delivery.—When no fixed quantity of goods is contracted for, and there is a minimum and maximum, the seller's liability, if the option is with him, is fixed by the minimum quantity.—Dierks Lumber & Coal Co. v. Duncan Shingle & Lumber Co. Kansas City Court of Appeals, Missouri. 234 S. W. 362.

Valid Custom Incorporated in Contract.—A valid usage or custom concerning the subject-matter of a contract, knowledge of which may be charged to the parties, is incorporated into the contract by implication, and in the absence of a different meaning expressed therein proof of such custom or usage is permitted to interpret the contract, but not to vary it.—Smith v. Smith. Court of Civil Appeals of Texas. 234 S. W. 419.

Freight Overcharge.—The clause in section 4839, Code of 1906, section 7624m, Hemingway's Code, prohibiting the carrier from charging more than the rate specified in the B/L issued by its authority, has no application where the rate charged and collected is on file with and has been approved by the Railroad Commission; that clause only applies where the rate in question has not been approved by the Commission.—E. L. Young Heading Co. v. Payne. Supreme Court of Mississippi. 89 South. 782.

Explosion Loss Included in Fire Policy.—Insurance against loss by fire includes all loss from explosions which are the direct result of an antecedent fire upon the insured premises. An insurer against fire is not liable for loss from an explosion caused by an antecedent fire occurring on premises other than those insured. Written agreements between insurer and insured, treating an explosion as the cause of damage and fixing the amount, will not preclude the insured from claiming that the loss from the explosion was insured against.—Liverpool & London & Globe Ins. Co. v. Currie. Court of Civil Appeals of Texas. 234 S. W. 232.

Contract Exonerating Sellers from Responsibility for Delay.—Altho potatoes sold were shipped, not by open B/L, which would have vested title in the buyers and thereby have imposed the risk of delay upon them, but by B/L to the sellers' order, "notify" the buyers, the sellers did not lose their right to sue for the purchase price of the potatoes because of the fact that they were delayed by war conditions of shipping, where the sales contract agreed

that the sellers should not be held "liable or responsible" for any delay over which they had no control.—York & Fenderson v. Z. M. L. Jeffreys & Son. Supreme Court of North Carolina. 109 S. E. 80.

Provisions of Uniform B/L.—The provisions of the "Uniform B/L Adopted by Carriers in Official Classification Territory, Effective January 1st, 1916," when employed, constitutes the contract between the parties to an interstate shipment and is binding upon them in determining their respective rights growing out of such interstate shipments. Section 5 of the conditions contained in such B/L, properly construed, gives the owner 48 hours after notice by the carrier of the arrival of goods, within which to remove the goods before the liability of the carrier as such ceases and its liability as warehouseman begins.—Del Signore v. Payne. Supreme Court of Appeals of West Virginia. 109 S. E. 232.

Suit Permissible in County Where Shipment Was Received.—Where oats were sold to plaintiff, domiciled in G. county, by defendant, of N. county, shipment received in G. county, "to shipper's order, notify [plaintiff] at S. Texas," and defendant drew draft on plaintiff for the price, and to it attached order bill of lading, and the draft was paid by plaintiff, on which bill was delivered to it and presented to the railroad company, whereon the oats were delivered to plaintiff, the transaction constituted a contract performable in the county in which the shipment was received, permitting suit there within the exception contained in Rev. St. art. 1830, subd. 5.—Pittman & Harrison Co. v. Sanders. Court of Civil Appeals of Texas. 234 S. W. 412.

Notice to Carrier of Loss; and Suit After Two Years.—A notice to carrier, "Our customer will not accept this shipment unless it is delivered at once, and it will be necessary for us to enter claim with the railroad company covering same," was a sufficient notice of claim for damages for loss of the goods, which were misdelivered. It is a federal question whether a notice of claim sufficiently complied with the requirement of a B/L for an interstate shipment. Clause in B/L covering interstate shipment, provided that action be brought for loss of goods within 2 years, did not bar an action, brought more than 2 years after a misdelivery, of which misdelivery plaintiff was not informed until more than 16 months after it occurred.—Fisk Rubber Co. v. New York, N. H. & H. R. R. Supreme Judicial Court of Massachusetts. 132 N. E. 714.

Nebraska Farmers' Elevators and U. S. G. G.

An interesting portion of the program of the recent convention of the Nebraska Farmers' Grain Dealers Ass'n at Omaha centered around a statement in the report of Sec'y J. W. Shorthill to the effect that the Ass'n had endorsed the marketing plan of the Com'te of 17.

Chas. Wooster, of Silver Creek, questioned the fact. He took the position that, altho the board of directors had taken the action reported by Mr. Shorthill, it was without authority from the Ass'n. He declared it the duty of the board of directors to wait for such authority before proceeding.

In explaining that he had studied the plan of the U. S. Grain Growers, Inc., which is a development of the plan of the Com'te of 17, Mr. Wooster said that he considers the organization one of the farmers' greatest enemies, having no money to carry out its contracts, and so far as he had been able to learn, having bought no grain in its 8 months of existence.

Mr. Wooster took occasion at another time in the convention to refer to Pres. Gustafson of the U. S. G. G. He referred to him as being president of everything in the United States except the United States itself and as a great misleader in that he is pres. of one of the biggest fakes ever perpetrated.

The convention elected the following officers: Pres., J. S. Canady, Minden; vice-pres., J. R. Morrison, Campbell; sec'y-treas., J. W. Shorthill, Omaha.

The Nebraska Managers' Ass'n elected M. L. Crandall, Nebraska City, pres., and E. P. Hubbard, Juniata, vice-pres.

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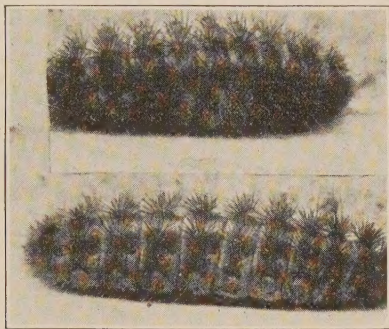
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Sorghum Webworm a Pest.

That the sorghum webworm may become a serious pest in sections where grain sorghums are produced is indicated by the damage wrought by these insects this year in the southern part of Missouri and to some extent in southeastern Kansas and northern Arkansas. The greatest destruction was in the counties of southwest Missouri, altho it was present as far north as the central portion of the state, and one report showed it to be quite abundant on the Iowa line. The Agricultural Experiment Station of the University of Missouri is studying the insect, and L. Haseman, entomologist of the Station, has given the following information concerning it:

The insect has been known since 1882, having first been described by Dr. V. C. Riley,



Sorghum Webworms in Larval Stage.
Greatly Enlarged.

who discovered it on grain sorghum in Alabama. It is rather closely related to the typical woolly worms or tiger moths and scientists know it as (*Nola*) *Celama sorghiella*, Riley. This means that there is a question whether its generic name should be given as *Celama* or *Nola*. Until this summer it was not known as a serious pest of sorghums altho it was known to feed on the seeds of these plants. During the late summer and early fall its activities became sufficiently extensive to give rise to the belief that it may become an important factor affecting production of grain sorghums.

The life cycle of the insect has not been followed out for a full year in the present investigation, but it is known that the damage is done by the small yellowish or brownish caterpillar. This larval stage is shown in the engraving reproduced herewith, in which the caterpillars are considerably enlarged. The larvae are yellowish or brownish, marked with darker longitudinal stripes, and armed with transverse rows of spines bearing tubercles. It is roughly about one-half inch long when full grown, moves slowly and spins silk sparingly. The fullfed worm spins a rather frail whitish cocoon attached to and usually protected within the heads of the sorghum it attacks. In the fall the pupal stage lasts but a few days when the whitish moth appears. The moth is a little less than an inch across and its white wings are blotched and mottled by tufts of brown scales along the front margin, and by brownish and black scales along the outer margin. In the adult or moth stage the insect flies quite swiftly.

It is known that this year one brood matured in late September and early October. In the latter part of November offspring of this brood were fullfed and apparently planning to pass the winter in the caterpillar stage in grain sorghums, hiding behind the blades of the plants and among the thickly matted portions of the heads. It is believed there is at least two broods a year, and there is a possibility that an additional brood may develop on the early sorghum crop. The fall brood succeeded in passing from the egg state to the fullfed caterpillar stage in four to six weeks.

Injury to grain sorghums is done by the worms. Young and old, they bore into the grains, especially before they became dry and

hard. In breeding cages they were observed by Mr. Haseman to be feeding on ripe grain to some extent, and on corn. In many fields the entire crop of seed was destroyed by the pest, while in others the damage was but slight.

Specimens of the insect were taken from tassels of corn by Ashmead but it is not known that they have attacked this cereal to any considerable extent. This entomologist also found that in sorghums numerous delicate tubes are formed and that the caterpillars pass thru these, feeding principally on the germ but sometimes devouring the whole seed.

The investigators are convinced that it has proven itself capable of becoming an important pest to grain sorghums, but they do not think it will continue year after year a serious menace to these crops. In this, they are influenced by the thought that permanent scourges to agricultural crops do not usually spring up in a single year, and hold the opinion that climatic conditions this year have been in large part responsible for the unusual abundance and destructive work of the insect.

Control methods recommended are based on the belief that the worm stage of the pest is passing the present winter harbored in the crop it attacks. If this is its practice from year to year, farmers should utilize all the fodder of grain sorghums before spring. During the winter, sorghum fields should be closely pastured and plowing late in the fall will turn under those worms that are collected about rubbish.

The plan is to destroy all overwintering worms and thus lessen the numbers of the first brood of next season.

At the Missouri Station it is thought that nature is exercising a check of her own on the insects. This is in the form of a parasite which attacks the egg of the webworm and others which attack the larvae or pupa. One of the egg parasites has been reared experimentally, and three of the parasites of the larvae or pupae have been so cultivated.

AUSTRALIA expects to discontinue the government wheat pool at the end of Dec. 1, and to permit the business to be handled by the trade thereafter, except in Western Australia. In the latter section, a separate state wheat board will be created and the present selling price of 9 shillings per bu. probably will be guaranteed.

Farmer Following Will-O-the-Wisps.

The ability of the consuming public to go on paying relatively higher prices for farm products at the point of consumption is probably explained in the same way that the ability of the railroads to continue operations in the face of high costs is explained—the consumer is using the whole of his income for living expenses and is neglecting ordinary maintenance and repairs just as the railroads are neglecting them.

Yet the farmer, as he expresses himself thru those who claim to represent him, is making no effort to remedy the conditions which bear upon him so heavily. Instead, he is to some extent allowing himself to be led off after economic will-o'-the-wisps and his judgment to be clouded by impassioned but wholly useless attacks upon other elements in the community upon whom he is inclined to place the blame for his troubles.

Taxes are costs, freight rates are costs, and the manufacturer who ignores them will soon disappear from the scene without having conferred any benefit whatever upon the farmer or the community in general. We are about to obtain some relief from taxes, altho the farmer will continue to feel the effects of the surtax on large incomes, in the withholding of capital from productive industry, but we are making only moderate progress toward a reduction of freight rates, and the farmer is contributing very little to the efforts being made to bring about the needed adjustments. —American Exchange National Bank.

Insurance Notes.

There was a young man in Pawtucket,
Who'd barrels but nary a bucket,
And I'm sorry to say,
A fire started one day,
And he couldn't use water to duck it.

—Our Paper.

LIGHTNING rods are 99.9% efficient, it was shown in an investigation conducted by the fire marshal of Ontario.

THE fire prevention campaign conducted by the Citizens Fire Prevention Com'n of Indianapolis during the last 10 months has resulted in a saving of \$700,000, according to a recent statement of the chairman in charge.

EVEN THO there isn't any business, making your place look prosperous anyhow. That's the way to bring business back. Don't load your office up with a lot of useless papers. They are nothing but fire feeders. Get rid of everything not essential.—Our Paper.

THE supreme court of Mississippi on Dec. 19 affirmed the action of Associate Justice W. D. Anderson in granting a supersedeas in the antitrust suit against fire insurance companies formerly doing business in the state and against whom fines aggregating \$8,000,000 were assessed by Chancellor V. J. Stricker.

A STATEMENT by the Western Grain Dealers Mutual Fire Ins. Co. shows that on Nov. 1 it had insurance in force of \$21,468,696, an increase of \$3,631,000 over the figures shown in its report for Jan. 1, 1921. During the same period, its admitted assets increased \$35,000 to a total of \$275,570, the surplus above the required legal reserve on Nov. 1 being \$150,000.

FRANK L. ERION, insurance adjuster and appraisal engineer, has resigned as vice-president of Lloyd, Thomas & Co., to assume a connection with James & Co., Chicago. In his new capacity he will be general adjuster for French and British insurance companies for which James & Co. are United States managers. Previous to his connection with Lloyd, Thomas & Co., Mr. Erion was with the Western Adjusters and Inspection Bureau.

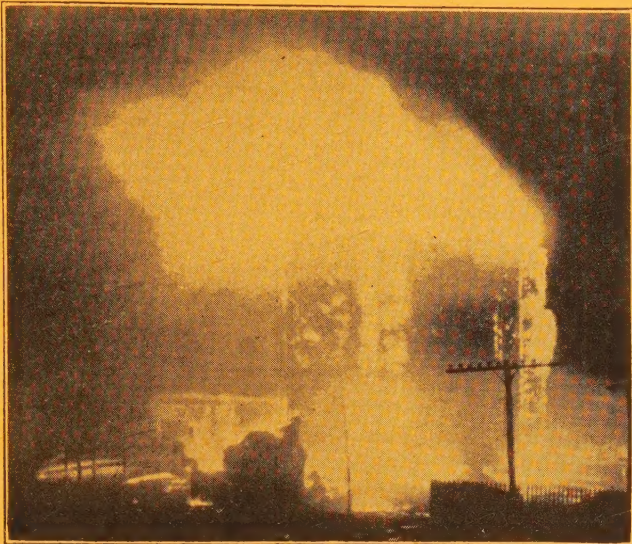
SOME AGENTS for insurance companies are objecting to continuation of the Underwriters Grain Ass'n. The reasons given are to the effect that the Ass'n's plan is essentially that of mutual insurance, and that stock companies should not have any part in such a plan. The real reason may be entirely apart from those stated, and in all probability it has something to do with commissions that would be obtained if the Ass'n were dissolved.

THE EXHAUST POT of a gasoline engine placed too near a wall started a fire in the elevator of the Farmers Elevator Co., Minneapolis, Kan. The loss was about \$1,200. A quantity of unburned oil and carbon had accumulated in the pot. Finally it ignited and its burning heated the pot and exhaust pipe to a point which fired the frame wall 6 inches away. Additional testimony tending to prove conclusively that where there is continued and concentrated heat there may soon be fire also.

CHICAGO, ILL.—The fire insurance loss of the Calumet Terminal Elevator of the C. & N. W. Ry., which was operated by the Armour Grain Co., and in which a dust explosion occurred last spring, has been compromised. The original claim made by the Armour Grain Co. was for \$1,832,063.67, but under the compromise \$1,394,141.86 will be accepted in settlement. Under the original proofs of claim the insurance companies had an interest in the salvage, but this will now be retained by the Armour Grain Co. The Underwriter Grain Ass'n takes subrogation of the right and interest of the Armour Grain Co. in the explosion insurance and a committee is considering the question of recovery under this insurance.

Don't be too optimistic. Congress will find some way to spend the money we save by disarmament.—Boston Post.

CAREFUL INSPECTION
before closing at night
would have prevented this fire



Do You Take This Precaution?
Mutual Fire Prevention Bureau
Chicago, Ill. F. F. BURROUGHS }
EUGENE ARMS } MANAGERS

Western Grain Dealers Mutual Fire Insurance Company

DES MOINES, IOWA

J. A. KING, President Geo. A. WELLS, Secretary

Write for Information Regarding Short Term Grain Insurance

Under \$500 or total—Which

Our records show that elevator fires are under \$500, or they are total. Where they are kept under \$500 proper fire fighting equipment is maintained. Are your barrels and buckets and other extinguishers in shape for the winter, or if a fire breaks out in your plant, will it mean a total loss?

G. R. McCOTTER
Western Manager
Omaha, Nebraska



G. A. McCOTTER
Secretary
Indianapolis, Ind.

Fire Explosion Windstorm Automobile

ORGANIZED 1902

TRI-STATE MUTUAL GRAIN DEALERS FIRE INSURANCE COMPANY
LIVERNE, MINN.

Average return for 19 years, 50% of the Deposit Premium.

Grain values reported monthly affords full protection.

Write for Information.

E. H. MORELAND, Secretary

Find security by having your valuable live stock insured.



The
Seal of Certainty

Transfer the risk you now take when shipping live stock to market by buying Transit Live Stock Insurance in the Hartford Fire Insurance Co. that will pay your loss.

These Figures Tell a Story better than words.

7,769 hogs arrived at St. Paul one day in May. 403 were found dead or injured. Only 137 were insured. The uninsured shippers paid their own loss. Make sure you will get indemnity by insuring.

For full information and rates get in touch with the local manager of the Hartford Fire Insurance Company at point of destination or write to the

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The GRAIN DEALERS JOURNAL.



With a friendly hand and a light heart, we extend the greetings of the season, with the hope that during the year to come your measure of business, health and prosperity may be filled often and abundantly.

We have thoroughly enjoyed our business associations with you and assure you that we will be at your service every day of the New Year.

Weller Manufacturing Co.
Chicago

